

THE
DIAN YEAR BOOK
1916.

A STATISTICAL AND HISTORICAL ANNUAL OF
THE INDIAN EMPIRE, WITH AN
EXPLANATION OF THE
PRINCIPAL TOPICS
OF THE DAY

EDITED BY
STANLEY REED, LL D.

THIRD YEAR OF ISSUE

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PREFACE.

The third issue of The Indian Year Book has been produced under the pressure of war. The public will readily appreciate the difficulties which this entailed. Certain great Indian questions are still in a state of flux. This applies especially to The Frontiers. A dramatic change was effected by the substitution of Germany instead of Russia as the Power which was creeping near the Indian border and by the association of Turkey with the Teutonic Powers in a war of colour tated aggression. Whilst the issue of the campaign in Mesopotamia can have but one end that has not yet been reached—a revolution in the Indian frontier problem has been brought about by the British conquest of Iraq and the collapse of the authority of the Persian Government before German brigands and an insurrectionary gendarmerie. So far as possible these have been outlined in the section on the Indian frontiers but the situation is rapidly changing.

Certain internal questions have also been materially affected by the war. The outbreak of hostilities closed the Continent to Indian produce and Germany and Austria were considerable buyers of Indian raw materials, whilst Germany had won a substantial share of the import trade. These changes, and their resultant effect on the trade of Japan have been described as far as possible. Indian finance too has been indirectly affected. In normal years India satisfies the major portion of her capital requirements for the construction of irrigation works and railways in London, that market has been temporarily closed by the demands of the Home Government and the official summary of the consequences which will be made in the next Budget is awaited with intense interest. Whilst these and many other changes have demanded special study the circle of valued colleagues who have helped in the production of The Year Book has been thinned by the war, those who remain are overworked. The thanks of the Editor are in special measure due to all who have collaborated in these circumstances.

In all important respects the Third Issue follows that of 1915. The debates of the Imperial and Provincial Legislative Councils have been recorded in greater fullness, because although by common consent controversial issues were avoided, they show the directions in which the political thought of India is tending. The special part which India is playing in the war is indicated by a full summary of the campaign in Mesopotamia and the section India and the War. The action at Ctesiphon was sought after the Mesopotamian section had gone to press.

In the earlier issues the Editor appealed for the editing of The Year Book by the public. The appeal has brought many suggestions, which have been incorporated in this issue. One friendly critic asked that in all circumstances the statistical tables should be brought up to date. The request would gladly have been met, but until the student dives deeply into Indian official literature he does not appreciate the difficulties which it presents. The main statistical volumes are issued tardily and at erratic intervals, whilst that invaluable companion, the statistical abstract of British India, reaches India in January, and even then is in some respects two or three years old. Where the statistics seem a little out of date they are taken from the last official returns, and except in very rare circumstances it has been thought safer to depend entirely on official publications.

THE EDITOR.

CALENDAR FOR 1916

January						
S	--		2	9	16	23 30
M	--		3	10	17	24 31
Tu	--		4	11	18	25
W	--		5	12	19	26
Th	--		6	13	20	27
F	--		7	14	21	28
S	--	1	8	15	22	29

February						
S	--		6	13	20	27
M	--		7	14	21	28
Tu	--	1	8	15	22	29
W	--	2	9	16	23	
Th	--	3	10	17	24	
F	--	4	11	18	25	
S	--	5	12	19	26	

March						
S	--		5	12	19	26
M	--		6	13	20	27
Tu	--		7	14	21	28
W	--	1	8	15	22	29
Th	--	2	9	16	23	30
F	--	3	10	17	24	31
S	--	4	11	18	25	

April						
S	--		2	9	16	23 30
M	--		3	10	17	24
Tu	--		4	11	18	25
W	--		5	12	19	26
Th	--		6	13	20	27
F	--		7	14	21	28
S	--	1	8	15	22	29

May						
S	--	1	7	14	21	28
M	--	2	8	15	22	29
Tu	--	3	9	16	23	30
W	--	4	10	17	24	31
Th	--	5	11	18	25	
F	--	6	12	19	26	
S	--	7	13	20	27	

June						
S	--		4	11	18	25
M	--		5	12	19	26
Tu	--		6	13	20	27
W	--		7	14	21	28
Th	--	1	8	15	22	29
F	--	2	9	16	23	30
S	--	3	10	17	24	

July						
S	--		2	9	16	23 30
M	--		3	10	17	24 31
Tu	--		4	11	18	25
W	--		5	12	19	26
Th	--		6	13	20	27
F	--		7	14	21	28
S	--	1	8	15	22	29

August						
S	--		6	13	20	27
M	--		7	14	21	28
Tu	--	1	8	15	22	29
W	--	2	9	16	23	30
Th	--	3	10	17	24	31
F	--	4	11	18	25	
S	--	5	12	19	26	

September						
S	--		3	10	17	24
M	--		4	11	18	25
Tu	--		5	12	19	26
W	--		6	13	20	27
Th	--		7	14	21	28
F	--	1	8	15	22	29
S	--	2	9	16	23	30

October						
S	--	1	8	15	22	29
M	--	2	9	16	23	30
Tu	--	3	10	17	24	
W	--	4	11	18	25	
Th	--	5	12	19	26	
F	--	6	13	20	27	
S	--	7	14	21	28	

November						
S	--		5	12	19	26
M	--		6	13	20	27
Tu	--		7	14	21	28
W	--		8	15	22	29
Th	--		9	16	23	30
F	--		10	17	24	
S	--	1	11	18	25	

December						
S	--		3	10	17	24 31
M	--		4	11	18	25
Tu	--		5	12	19	26
W	--		6	13	20	27
Th	--		7	14	21	28
F	--	1	8	15	22	29
S	--	2	9	16	23	30

Phases of the Moon—JANUARY 31 Days.

☾ New Moon
☾ First Quarter
☾ In Perigee

5th, 10h. 15 4m. A.M.
12th, 9h. 7 6m. A.M.
4th, 7 8h. P.M.

☾ Full Moon
☾ Last Quarter
☾ In Apogee

20th, 1h. 59' 0m. P.M.
23th, 6h. 5 1m. A.M.
th, 10 6h. A.M.

Day of the Week.	Day of the Month.	Day of the Year	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon
			Sunrise A.M.		Sunset P.M.		True Noon.			
			H.	M.	H.	M.	H.	M.	D.	S.
Saturday	1	1	7	12	6	12	0	P.M. 42	25 55	23 7
Sunday	2	2	7	12	6	13	0	42	26 56	23 2
Monday	3	3	7	13	6	13	0	43	27 55	22 57
Tuesday	4	4	7	13	6	14	0	43	28 55	22 51
Wednesday	5	5	7	13	6	15	0	44	0 10	22 45
Thursday	6	6	7	14	6	15	0	44	1 10	22 39
Friday	7	7	7	14	6	16	0	45	2 10	22 32
Saturday	8	8	7	14	6	17	0	46	3 10	22 25
Sunday	9	9	7	14	6	17	0	46	4 10	22 17
Monday	10	10	7	14	6	18	0	46	5 10	22 9
Tuesday	11	11	7	15	6	18	0	47	6 10	22 0
Wednesday	12	12	7	15	6	19	0	47	7 10	21 51
Thursday	13	13	7	15	6	20	0	47	8 10	21 42
Friday	14	14	7	15	6	20	0	48	9 10	21 32
Saturday	15	15	7	15	6	21	0	48	10 10	21 21
Sunday	16	16	7	15	6	22	0	48	11 10	21 11
Monday	17	17	7	15	6	22	0	49	12 10	21 0
Tuesday	18	18	7	15	6	23	0	49	13 10	20 48
Wednesday	19	19	7	15	6	24	0	49	14 10	20 36
Thursday	20	20	7	15	6	24	0	50	15 10	20 24
Friday	21	21	7	15	6	25	0	50	16 10	20 11
Saturday	22	22	7	15	6	26	0	50	17 10	19 58
Sunday	23	23	7	15	6	26	0	50	18 10	19 44
Monday	24	24	7	15	6	27	0	51	19 10	19 31
Tuesday	25	25	7	15	6	27	0	51	20 10	19 16
Wednesday	26	26	7	15	6	28	0	51	21 10	19 2
Thursday	27	27	7	15	6	29	0	51	22 10	18 47
Friday	28	28	7	15	6	29	0	52	23 10	18 32
Saturday	29	29	7	14	6	30	0	52	24 10	18 16
Sunday	30	30	7	14	6	30	0	52	25 10	18 0
Monday	31	31	7	14	6	31	0	52	26 10	17 44

Phases of the Moon—FEBRUARY 29 Days.

☾ New Moon
☾ First Quarter
in Perigee

3rd, 6h. 35 m. P.M.
11th, 8h. 50 m. A.M.
2nd, 5 h. A.M.

☉ Full Moon
☾ Last Quarter
in Apogee

19th, 7h. 58 m. A.M.
28th, 2h. 53 m. P.M.
14th 2 9h. A.M.

Day of the Week.	Day of the Month.	Day of the Year	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise A.M.		Sunset P.M.		True Noon			
			H	M	H	M	H	P.M.	D	°.
Tuesday	1	32	7	14	6	31	0	53	27 10	1° 22'
Wednesday	2	33	7	13	6	32	0	52	28 10	17 11
Thursday	3	34	7	13	6	33	0	53	29 10	16 53
Friday	4	35	7	13	6	33	0	53	0 63	16 36
Saturday	5	36	7	12	6	34	0	53	1 63	16 18
Sunday	6	37	7	12	6	34	0	53	2 63	16 0
Monday	7	38	7	12	6	35	0	53	3 63	15 42
Tuesday	8	39	7	11	6	35	0	53	4 63	15 23
Wednesday	9	40	7	11	6	36	0	53	5 63	15 6
Thursday	10	41	7	10	6	36	0	53	6 63	14 46
Friday	11	42	7	10	6	37	0	53	7 63	14 22
Saturday	12	43	7	9	6	37	0	53	8 63	14 7
Sunday	13	44	7	9	6	37	0	53	9 63	13 47
Monday	14	45	7	9	6	38	0	53	10 63	13 27
Tuesday	15	46	7	8	6	39	0	53	11 63	13 7
Wednesday	16	47	7	7	6	39	0	53	12 63	12 46
Thursday	17	48	7	7	6	40	0	53	13 63	12 25
Friday	18	49	7	6	6	40	0	53	14 63	12 6
Saturday	19	50	7	6	6	40	0	53	15 63	11 44
Sunday	20	51	7	5	6	41	0	53	16 63	11 22
Monday	21	52	7	5	6	41	0	53	17 63	11 1
Tuesday	22	53	7	4	6	42	0	53	18 63	10 39
Wednesday	23	54	7	3	6	42	0	52	19 63	10 18
Thursday	24	55	7	3	6	42	0	52	20 63	9 56
Friday	25	56	7	2	6	43	0	52	21 63	9 34
Saturday	26	57	7	1	6	43	0	52	22 63	9 11
Sunday	27	58	7	1	6	43	0	52	23 63	8 49
Monday	28	59	7	0	6	44	0	52	24 63	8 27
Tuesday	29	60	6	59	6	44	0	52	25 63	8 4

Phases of the Moon—MARCH 31 Days.

☾ First Quarter
 ○ Full Moon
 ☾ In Perigee
 ☾ In Apogee

4th, 9h 27m. A.M.
 12th, 0h. 30m. A.M.
 1st 2 2h. P.M.
 12th, 10 9h. P.M.

☾ Last Quarter
 ● New Moon
 ☾ In Perigee

19th, 10h. 56-7m. P.M.
 25th, 0h. 57-4m. P.M.
 26th, 6 7 P.M.

Day of the Week.	Day of the Month.	Day of the Year	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise. A.M.		Sunset. P.M.		True Noon.			
			H.	M.	H.	M.	P.	M.	D.	S.
Wednesday	1	61	6	59	6	44	0	51	26 03	7 41
Thursday	2	62	6	58	6	45	0	51	27 03	7 38
Friday	3	63	6	57	6	45	0	51	28 03	7 34
Saturday	4	64	6	56	6	45	0	51	0 14	6 28
Sunday	5	65	6	56	6	46	0	50	1 14	6 9
Monday	6	66	6	55	6	46	0	50	2 14	5 44
Tuesday	7	67	6	54	6	46	0	50	3 14	5 20
Wednesday	8	68	6	53	6	47	0	50	4 14	5 6
Thursday	9	69	6	53	6	47	5	50	5 14	4 34
Friday	10	70	6	52	6	47	0	49	6 14	4 18
Saturday	11	71	6	51	6	48	0	49	7 14	3 40
Sunday	12	72	6	50	6	48	0	48	8 14	3 20
Monday	13	73	6	49	6	48	0	48	9 14	3 2
Tuesday	14	74	6	48	6	48	0	48	10 14	2 30
Wednesday	15	75	6	47	6	49	0	48	11 14	2 16
Thursday	16	76	6	46	6	49	0	48	12 14	1 51
Friday	17	77	6	45	6	49	0	47	13 14	1 27
Saturday	18	78	6	44	6	49	0	47	14 14	1 4
Sunday	19	79	6	44	6	50	0	47	15 14	0 40
Monday	20	80	6	43	6	50	0	46	16 14	0 16
Tuesday	21	81	6	42	6	50	0	46	17 14	0 17
Wednesday	22	82	6	41	6	50	0	46	18 14	0 31
Thursday	23	83	6	40	6	51	0	46	19 14	0 58
Friday	24	84	6	39	6	51	0	45	20 14	1 10
Saturday	25	85	6	39	6	51	0	45	21 14	1 42
Sunday	26	86	6	38	6	51	0	45	22 14	2 6
Monday	27	87	6	37	6	51	0	44	23 14	2 30
Tuesday	28	88	6	37	6	52	0	44	24 14	2 50
Wednesday	29	89	6	36	6	52	0	44	25 14	3 16
Thursday	30	90	6	35	6	52	0	43	26 14	3 30
Friday	31	91	6	34	6	52	0	43	27 14	4 3

Phases of the Moon—APRIL 30 Days

☾ New Moon
☾ First Quarter
In Apogee

2nd, 6h. 51 2m. P.M.
10th, 8h. 57m. P.M.
9th, 7 2h. P.M.

☾ Full Moon
☾ Last Quarter
In Perigee

19th, 10h. 37 5m. A.M.
25th, 4h. 8 3m. A.M.
21st, 5 1h. P.M.

Day of the Week.	Day of the Month.	Day of the Year	Mean Time.			Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Rising. A.M.	Sunset. P.M.	True Noon.		
			H. M.	H. M.	H. M.	D	N.
Saturday	1	92	6 33	6 53	0 43	23 14	4 36
Sunday	2	93	6 33	6 53	0 43	23 14	4 49
Monday	3	94	6 32	6 53	0 43	0 62	5 12
Tuesday	4	95	6 31	6 53	0 43	1 62	5 35
Wednesday	5	96	6 30	6 54	0 42	2 62	5 58
Thursday	6	97	6 29	6 54	0 41	3 62	6 21
Friday	7	98	6 28	6 54	0 41	4 62	6 43
Saturday	8	99	6 28	6 54	0 41	5 62	7 6
Sunday	9	100	6 27	6 54	0 40	6 62	7 28
Monday	10	101	6 26	6 54	0 40	7 62	7 50
Tuesday	11	102	6 25	6 55	0 40	8 62	8 13
Wednesday	12	103	6 24	6 55	0 40	9 62	8 35
Thursday	13	104	6 24	6 55	0 39	10 62	8 57
Friday	14	105	6 23	6 56	0 39	11 62	9 18
Saturday	15	106	6 22	6 56	0 39	12 62	9 40
Sunday	16	107	6 21	6 56	0 39	13 62	1
Monday	17	108	6 21	6 56	0 38	14 62	2
Tuesday	18	109	6 20	6 57	0 38	15 62	44
Wednesday	19	110	6 19	6 57	0 38	16 62	11 4
Thursday	20	111	6 19	6 57	0 38	17 62	11 25
Friday	21	112	6 18	6 57	0 38	18 62	11 46
Saturday	22	113	6 17	6 57	0 37	19 62	12 8
Sunday	23	114	6 16	6 58	0 37	20 62	12 26
Monday	24	115	6 16	6 58	0 37	21 62	12 46
Tuesday	25	116	6 15	6 58	0 37	22 62	13 6
Wednesday	26	117	6 14	6 59	0 37	23 62	13 25
Thursday	27	118	6 14	6 59	0 36	24 62	13 45
Friday	28	119	6 13	7 0	0 36	25 62	14 4
Saturday	29	120	6 12	7 0	0 36	26 62	14 22
Sunday	30	121	6 12	7 0	0 36	27 62	14 41

☾ New Moon
☾ First Quarter
In Apogee

2nd, 10h. 58 9m. A.M.
10th, 2h. 17 1m. P.M.
7th, 1 2h. P.M.

☾ Full Moon
☾ Last Quarter
In Perigee

17th, 7h. 41 3m. P.M.
24th, 10h. 46 4m. A.M.
19th, 1 5h. P.M.

Day of the Week	Day of the Month.	Day of the Year	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise.		Sunset.		True Noon.			
			A.M.		P.M.					
			H	M	H	M	H.	M.	D	N
Monday	1	122	6	11	7	1	0	P.M. 36	28 62	14 59
Tuesday	2	123	6	11	7	1	0	36	0 07	15 17
Wednesday	3	124	6	10	7	1	0	36	1 07	15 35
Thursday	4	125	6	10	7	2	0	36	2 07	15 53
Friday	5	126	6	9	7	2	0	35	3 07	16 10
Saturday	6	127	6	9	7	2	0	35	4 07	16 27
Sunday	7	128	6	8	7	3	0	35	5 07	16 44
Monday	8	129	6	8	7	3	0	35	6 07	17 1
Tuesday	9	130	6	7	7	3	0	35	7 07	17 17
Wednesday	10	131	6	7	7	4	0	35	8 07	17 33
Thursday	11	132	6	6	7	4	0	35	9 07	17 48
Friday	12	133	6	6	7	4	0	35	10 07	18 4
Saturday	13	134	6	5	7	5	0	35	11 07	18 19
Sunday	14	135	6	5	7	5	0	35	12 07	18 34
Monday	15	136	6	5	7	6	0	35	13 07	18 48
Tuesday	16	137	6	4	7	6	0	35	14 07	19 2
Wednesday	17	138	6	4	7	6	0	35	15 07	19 16
Thursday	18	139	6	4	7	7	0	35	16 07	19 29
Friday	19	140	6	3	7	7	0	35	17 07	19 42
Saturday	20	141	6	3	7	7	0	35	18 07	19 55
Sunday	21	142	6	3	7	8	0	35	19 07	20 8
Monday	22	143	6	2	7	8	0	35	20 07	20 20
Tuesday	23	144	6	2	7	9	0	35	21 07	20 32
Wednesday	24	145	6	2	7	9	0	35	22 07	20 43
Thursday	25	146	6	2	7	9	0	35	23 07	20 54
Friday	26	147	6	2	7	10	0	35	24 07	21 5
Saturday	27	148	6	2	7	10	0	35	25 07	21 15
Sunday	28	149	6	1	7	11	0	35	26 07	21 25
Monday	29	150	6	1	7	11	0	35	27 07	21 35
Tuesday	30	151	6	1	7	11	0	35	28 07	21 44
Wednesday	31	152	6	1	7	12	0	35	0 48	21 53

Phases of the Moon—JUNE 30 Days.

☾ New Moon
☾ First Quarter
☾ In Apogee

1st, 1h 7 3m. A.M.
9th, 5h. 29 0m. A.M.
4th, 3 0h. A.M.

☾ Full Moon
☾ Last Quarter
☾ New Moon
☾ In Perigee

14th, 5h. 11-7m. A.M.
22nd, 6h. 44 3m. P.M.
30th, 4h 13 4m. P.M.
16th, 8 1h. P.M.

Day of the Week.	Day of the Month.	Day of the Year	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise. A.M.		Sunset P.M.		True Noon			
			H	M.	H	M	H	M	D	N
Thursday	1	153	6	1	7	12	0	36	0 48	22 1
Friday	2	154	6	1	7	12	0	36	1 48	22 9
Saturday	3	155	6	1	7	13	0	37	2 48	22 17
Sunday	4	156	6	1	7	13	0	37	3 48	22 24
Monday	5	157	6	1		14	0	3	4 48	22 31
Tuesday	6	158	6	1	7	14	0	37	5 48	22 38
Wednesday	7	159	6	1	7	14	0	37	6 48	22 44
Thursday	8	160	6	1	7	15	0	38	7 48	22 50
Friday	9	161	6	1	7	15	0	38	8 48	22 56
Saturday	10	162	6	1	7	15	0	38	9 48	23 0
Sunday	11	163	6	1	7	16	0	38	10 48	23 4
Monday	12	164	6	1	7	16	0	38	11 48	23 8
Tuesday	13	165	6	1	7	16	0	39	12 48	23 12
Wednesday	14	166	6	1	7	17	0	39	13 48	23 15
Thursday	15	167	6	1	7	17	0	39	14 48	23 18
Friday	16	168	6	1	7	17	0	39	15 48	23 21
Saturday	17	169	6	1	7	17	0	40	16 48	23 23
Sunday	18	170	6	2	7	18	0	40	17 48	23 26
Monday	19	171	6	2	7	18	0	40	18 48	23 28
Tuesday	20	172	6	2	7	18	0	40	19 48	23 32
Wednesday	21	173	6	2	7	18	0	40	20 48	23 37
Thursday	22	174	6	3	7	19	0	41	21 48	23 37
Friday	23	175	6	3	7	19	0	41	22 48	23 37
Saturday	24	176	6	3	7	19	0	41	23 48	23 36
Sunday	25	177	6	3	7	19	0	41	24 48	23 35
Monday	26	178	6	3	7	19	0	41	25 48	23 33
Tuesday	27	179	6	4	7	19	0	42	26 48	23 31
Wednesday	28	180	6	4	7	20	0	42	27 48	23 18
Thursday	29	181	6	4	7	20	0	42	28 48	23 15
Friday	30	182	6	5	7	20	0	42	29 48	23 12

Phases of the Moon—JULY 31 Days

☾ First Quarter
 ○ Full Moon
 In Apogee

8th, 5h. 25 Om. P.M.
 15th, 10h. 10 Om. A.M.
 1st, 9 7h A.M.

☾ Last Quarter
 ● New Moon
 In Perigee

22nd, 5h. 3 Om. A.M.
 29th, 7h. 45 Om. A.M.
 15th, 5 5h. A.M.
 28th 1 0h P.M.

Day of the Week.	Day of the Month	Day of the Year	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise A.M.		Sunset P.M.		True Noon.			
			H.	M.	H.	M.	H.	M.	D.	N.
Saturday	1	183	6	5	7	20	0	PM 42	0 85	23 9
Sunday	2	184	6	5	7	20	0	42	1 85	23 4
Monday	3	185	6	6	7	20	0	43	2 85	23 0
Tuesday	4	186	6	6	7	20	0	43	3 85	22 55
Wednesday	5	187	6	6	7	20	0	43	4 85	22 50
Thursday	6	188	6	7	7	20	0	43	5 85	22 44
Friday	7	189	6	7		20	0	44	6 85	22 38
Saturday	8	190	6	7	7	20	0	44	7 85	22 31
Sunday	9	191	6	8	7	20	0	44	8 85	22 25
Monday	10	192	6	8	7	20	0	44	9 85	22 17
Tuesday	11	193	6	8	7	20	0	44	10 85	22 10
Wednesday	12	194	6	9	7	20	0	44	11 85	22 2
Thursday	13	195	6	9	7	20	0	44	12 85	21 53
Friday	14	196	6	9	7	20	0	44	13 85	21 44
Saturday	15	197	6	9	7	20	0	45	14 85	21 35
Sunday	16	198	6	10	7	19	0	45	15 85	21 26
Monday	17	199	6	10	7	19	0	45	16 85	21 16
Tuesday	18	200	6	10	7	19	0	45	17 85	21 6
Wednesday	19	201	6	11	7	19	0	45	18 85	20 56
Thursday	20	202	6	11	7	19	0	45	19 85	20 44
Friday	21	203	6	12	7	19	0	45	20 85	20 33
Saturday	22	204	6	12	7	18	0	45	21 85	20 21
Sunday	23	205	6	13	7	18	0	45	22 85	20 9
Monday	24	206	6	13	7	17	0	45	23 85	19 57
Tuesday	25	207	6	14	7	17	0	45	24 85	19 44
Wednesday	26	208	6	14	7	17	0	45	25 85	19 31
Thursday	27	209	6	14	7	16	0	45	26 85	19 18
Friday	28	210	6	14	7	16	0	45	27 85	19 4
Saturday	29	211	6	15	7	16	0	45	28 85	18 50
Sunday	30	212	6	15	7	15	0	45	0 22	18 36
Monday	31	213	6	15	7	15	0	45	1 21	18 22

Phases of the Moon—AUGUST 31 Days.

First Quarter
Full Moon
In Perigee

7th, 2h. 35 8m. A.M.
13th, 5h. 30 8m P.M.
18th, 2 8h. P.M.

Last Quarter
New Moon
In Apogee

20th, 6h. 23 8m. P.M.
29th, 10h. 54 7m P.M.
24th, 10 5h P.M.

Day of the Week.	Day of the Month.	Day of the Year	Mean Time			Moon's Age at Noon.	Sun's Declination at Mean Noon.		
			Sunrise A M	Sunset P M	True Noon				
			H	M	H	M	P. M. M.	D	N
Tuesday	1	214	6	16	7	14	0 45	2 21	18 7
Wednesday	2	215	6	16	7	14	0 45	3 21	17 52
Thursday	3	216	6	16	7	14	0 45	4 21	17 36
Friday	4	217	6	17	7	13	0 45	5 21	17 20
Saturday	5	218	6	17	7	13	0 45	6 21	17 4
Sunday	6	219	6	17	7	12	0 45	7 21	16 48
Monday	7	220	6	18	7	11	0 44	8 21	16 31
Tuesday	8	221	6	18	7	11	0 44	9 21	16 15
Wednesday	9	222	6	18	7	11	0 44	10 21	15 58
Thursday	10	223	6	18	7	10	0 44	11 21	15 29
Friday	11	224	6	19	7	9	0 44	12 21	15 23
Saturday	12	225	6	19	7	9	0 44	13 21	15 6
Sunday	13	226	6	19	7	8	0 44	14 21	14 47
Monday	14	227	6	20	7	7	0 43	15 21	14 28
Tuesday	15	228	6	20	7	7	0 43	16 31	14 10
Wednesday	16	229	6	20	7	6	0 43	17 21	13 51
Thursday	17	230	6	20	7	6	0 43	18 21	
Friday	18	231	6	21	7	5	0 43	19 21	
Saturday	19	232	6	21	7	4	0 42	20 21	
Sunday	20	233	6	21	7	3	0 42	21 21	12 34
Monday	21	234	6	22	7	3	0 42	22 21	12 14
Tuesday	22	235	6	22	7	2	0 42	23 21	11 54
Wednesday	23	236	6	22	7	1	0 41	24 21	11 34
Thursday	24	237	6	22	7	1	0 41	25 21	11 13
Friday	25	238	6	22	7	0	0 41	26 21	10 53
Saturday	26	239	6	23	6	59	0 41	27 21	10 32
Sunday	27	240	6	23	6	58	0 40	28 21	10 11
Monday	28	241	6	23	6	57	0 40	29 21	9 50
Tuesday	29	242	6	23	6	56	0 40	30 21	9 29
Wednesday	30	243	6	23	6	56	0 39	1 57	9 7
Thursday	31	244	6	24	6	55	0 39	2 57	8 46

Phases of the Moon—SEPTEMBER 30 Days.

☾ First Quarter	5th, 9h. 56 5m. A.M.	☾ Last Quarter	19th, 11h. 5 5m. A.M.
○ Full Moon	12th, 2h. 0 9m. A.M.	● New Moon	27th, 1h. 4 1m. P.M.
☾ In Perigee	9th, 6 9h. P.M.	☾ In Apogee	21st, 3 1m. P.M.

Day of the Week.	Day of the Month.	Day of the Year.	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise. A.M.		Sunset. P.M.		True Noon			
			H.	M.	H.	M.	P.	M.	D.	N.
Friday	1	245	6	24	6	54	0	38	3 57	9 44
Saturday	2	246	6	24	6	53	0	38	4 57	8 2
Sunday	3	247	6	24	6	53	0	38	5 57	7 40
Monday	4	248	6	24	6	52	0	38	6 57	6 18
Tuesday	5	249	6	25	6	51	0	37	7 57	6 56
Wednesday	6	250	6	25	6	50	0	37	8 57	6 34
Thursday	7	251	6	25	6	49	0	37	9 57	6 12
Friday	8	252	6	25	6	48	0	36	10 57	5 40
Saturday	9	253	6	25	6	47	0	36	11 57	5 26
Sunday	10	254	6	26	6	47	0	36	12 57	5 4
Monday	11	255	6	26	6	46	0	35	13 57	4 41
Tuesday	12	256	6	26	6	45	0	35	14 57	4 18
Wednesday	13	257	6	26	6	44	0	34	15 57	3 55
Thursday	14	258	6	26	6	43	0	34	16 57	3 32
Friday	15	259	6	26	6	42	0	34	17 57	3 9
Saturday	16	260	6	27	6	41	0	33	18 57	2 46
Sunday	17	261	6	27	6	40	0	33	19 57	2 23
Monday	18	262	6	27	6	39	0	33	20 57	2 0
Tuesday	19	263	6	27	6	39	0	32	21 57	1 36
Wednesday	20	264	6	27	6	38	0	32	22 57	1 13
Thursday	21	265	6	27	6	37	0	32	23 57	0 50
Friday	22	266	6	28	6	36	0	31	24 57	0 26
Saturday	23	267	6	28	6	35	0	31	25 57	0 7
Sunday	24	268	6	28	6	34	0	31	26 57	0 30
Monday	25	269	6	28	6	33	0	30	27 57	0 44
Tuesday	26	270	6	28	6	33	0	30	28 57	1 7
Wednesday	27	271	6	28	6	32	0	30	29 57	1 31
Thursday	28	272	6	29	6	31	0	29	30 57	1 54
Friday	29	273	6	29	6	30	0	29	1 58	2 17
Saturday	30	274	6	29	6	29	0	29	2 58	2 41

Phases of the Moon—OCTOBER 31 Days.

First Quarter
Full Moon
In Portage

4th 4h. 30 5m. P.M.
11th. 0h 31 1m P.M.
7th. 4 0h A.M.

Last Quarter
New Moon
In Apogee

19th, 6h, 36 7m. A.M.
27th, 2h 7 0m. A.M.
19th, 10 7h. A.M.

Day of the Week.	Day of the Month	Day of the Year	Mean Time			Moon's Age at Noon.	Sun's Declination at Mean Noon
			Sunrise. A.M.	Sunset. P.M.	True Noon.		
			H. M.	H. M.	H. P.M. M.	D.	8
Sunday	1	276	6 30	6 28	0 29	3 98	3 4
Monday	2	276	6 30	6 27	0 28	4 98	8 27
Tuesday	3	277	6 30	6 26	0 28	5 98	3 51
Wednesday	4	27	6 30	6 26	0 28	6 98	4 14
Thursday	5	279	6 30	6 25	0 27	7 98	4 37
Friday	6	280	6 31	6 24	0 27	8 98	5 0
Saturday	7	281	6 31	6 23	0 27	9 98	5 23
Sunday	8	282	6 31	6 23	0 27	10 98	5 46
Monday	9	283	6 31	6 21	0 26	11 98	6 9
Tuesday	10	284	6 31	6 20	0 26	12 98	6 32
Wednesday	11	285	6 32	6 19	0 26	13 98	6 55
Thursday	12	286	6 32	6 18	0 25	14 98	7 17
Friday	13	287	6 32	6 18	0 25	15 98	7 40
Saturday	14	288	6 33	6 17	0 25	16 98	8 2
Sunday	15	289	6 33	6 16	0 25	17 98	8 25
Monday	16	290	6 33	6 15	0 24	18 98	8 47
Tuesday	17	291	6 33	6 15	0 24	19 98	9
Wednesday	18	292	6 34	6 14	0 24	20 98	9 31
Thursday	19	293	6 34	6 13	0 24	21 98	9 53
Friday	20	294	6 34	6 13	0 24	22 98	10 7
Saturday	21	295	6 35	6 12	0 24	23 98	10 35
Sunday	22	296	6 35	6 11	0 24	24 98	10 57
Monday	23	297	6 35	6 11	0 23	25 98	11 18
Tuesday	24	298	6 35	6 10	0 23	26 98	11 39
Wednesday	25	299	6 36	6 10	0 23	27 98	12 0
Thursday	26	300	6 36	6 9	0 23	28 98	12 21
Friday	27	301	6 37	6 8	0 23	0 44	12 41
Saturday	28	302	6 37	6 8	0 23	1 44	13 2
Sunday	29	303	6 37	6 7	0 23	2 44	13 22
Monday	30	304	6 38	6 7	0 22	3 44	13 42
Tuesday	31	305	6 38	6 7	0 22	4 44	14 1

Phases of the Moon—NOVEMBER 30 Days.

☾ First Quarter	22d, 11h, 20 6m P.M.	☾ Last Quarter	18th, 2h, 30 5m. A.M.
○ Full Moon	10th, 1h, 48 0m A.M.	● New Moon	25th, 2h, 29 4m. P.M.
In Perigee	1st 0 3h A.M.	In Apogee	10th, 7 3h. A.M.
		In Perigee	28th, 1 2h A.M.

Day of the Week.	Day of the Month.	Day of the Year	Mean Time.			Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise A.M.	Sunset P.M.	True Noon.		
			H. M.	H. M.	H. M. P.M.	D.	S.
Wednesday	1	306	6 39	6 6	0 22	5 44	14 21
Thursday	2	307	6 39	6 6	0 22	6 44	14 40
Friday	3	308	6 40	6 5	0 22	7 44	14 59
Saturday	4	309	6 40	6 5	0 22	8 44	15 18
Sunday	5	310	6 41	6 4	0 22	9 44	15 36
Monday	6	311	6 41	6 4	0 22	10 44	15 54
Tuesday	7	312	6 42	6 3	0 22	11 44	16 12
Wednesday	8	313	6 42	6 3	0 23	12 44	16 30
Thursday	9	314	6 43	6 3	0 23	13 44	16 47
Friday	10	315	6 43	6 2	0 23	14 44	17 4
Saturday	11	316	6 44	6 2	0 23	15 44	17 21
Sunday	12	317	6 44	6 2	0 23	16 44	17 38
Monday	13	318	6 45	6 2	0 23	17 44	17 54
Tuesday	14	319	6 45	6 1	0 23	18 44	18 0
Wednesday	15	320	6 46	6 1	0 24	19 44	18 25
Thursday	16	321	6 47	6 1	0 24	20 44	18 41
Friday	17	322	6 47	6 1	0 24	21 44	18 55
Saturday	18	323	6 48	6 0	0 24	22 44	19 10
Sunday	19	324	6 48	6 0	0 24	23 44	19 24
Monday	20	325	6 49	6 0	0 24	24 44	19 38
Tuesday	21	326	6 49	6 0	0 25	25 44	19 52
Wednesday	22	327	6 50	6 0	0 25	26 44	20 5
Thursday	23	328	6 50	6 0	0 25	27 44	20 18
Friday	24	329	6 51	6 0	0 26	28 44	20 30
Saturday	25	330	6 51	6 0	0 26	29 44	20 41
Sunday	26	331	6 52	6 0	0 26	0 33	20 54
Monday	27	332	6 53	6 0	0 26	1 33	21 5
Tuesday	28	333	6 54	6 0	0 27	2 33	21 16
Wednesday	29	334	6 54	6 0	0 27	3 33	21 27
Thursday	30	335	6 55	6 0	0 27	4 33	21 37

Phases of the Moon—DECEMBER 31 Days.

) First Quarter 2nd, 7h. 25 5m. A.M.
 O Full Moon 9th, 6h 18 9m. P.M.
 In Apogee 14th 2 3h A.M.

(Last Quarter 17th, 11h. 26 4m. P.M.
 • New Moon 26th, 2h 1 2m. A.M.
) First Quarter 31st, 5h 37 2m. P.M.
 In Perigee 26th 6 0h A.M.

Day of the Week.	Day of the Month	Day of the Year	Mean Time.						Moon's Age at Noon.	Sun's Declination at Mean Noon.
			Sunrise A.M.		Sunset P.M.		True Noon.			
			H	M	H	M	H	M	D	S
Friday	1	336	6	56	6	0	0	28	5 93	21 46
Saturday	2	337	6	56	6	1	0	28	6 93	21 56
Sunday	3	338	6	57	6	1	0	29	7 93	22 4
Monday	4	339	6	57	6	1	0	29	8 93	22 13
Tuesday	5	340	6	58	6	1	0	29	9 93	22 21
Wednesday	6	341	6	59	6	1	0	30	10 93	22 28
Thursday	7	342	6	59	6	1	0	30	11 93	22 35
Friday	8	343	7	0	6	2	0	31	12 93	22 42
Saturday	9	344	7	1	6	2	0	31	13 93	22 48
Sunday	10	345	7	1	6	2	0	32	14 93	22 54
Monday	11	346	7	2	6	3	0	32	15 93	22 59
Tuesday	12	347	7	2	6	3	0	32	16 91	23 4
Wednesday	13	348	7	3	6	3	0	33	17 93	23 9
Thursday	14	349	7	3	6	4	0	33	18 93	23 12
Friday	15	350	7	4	6	4	0	34	19 93	23 16
Saturday	16	351	7	5	6	4	0	34	20 93	23 19
Sunday	17	352	7	5	6	5	0	35	21 93	23 21
Monday	18	353	7	6	6	5	0	35	22 93	23 23
Tuesday	19	354	7	6	6	6	0	36	23 93	23 25
Wednesday	20	355	7	7	6	6	0	36	24 93	23 26
Thursday	21	356	7	7	6	7	0	37	25 93	23 27
Friday	22	357	7	8	6	7	0	37	26 93	23 27
Saturday	23	358	7	8	6	8	0	38	27 93	23 27
Sunday	24	359	7	9	6	8	0	38	28 93	23 26
Monday	25	360	7	9	6	9	0	39	0 45	23 25
Tuesday	26	361	7	10	6		0	39	1 45	23 23
Wednesday	27	362	7	10	6	10	0	40	2 45	23 21
Thursday	28	363	7	11	6	10	0	40	3 45	23 18
Friday	29	364	7	11	6	11	0	41	4 45	23 15
Saturday	30	365	7	11	6	12	0	41	5 45	23 12
Sunday	31	366	7	12	6	12	0	42	6 45	23 8

CALENDAR FOR 1917

January

S					
M	--	1	7	14	21
Tu		2	8	15	22
W		3	9	16	23
Th		4	10	17	24
F		5	11	18	25
S		6	12	19	26
			13	20	27

February

S					
M			4	11	18
Tu			5	12	19
W			6	13	20
Th	--	1	7	14	21
F		2	8	15	22
S		3	9	16	23
			10	17	24

March

S					
M	--		4	11	18
Tu	--		5	12	19
W			6	13	20
Th			7	14	21
F		1	8	15	22
S		2	9	16	23
		3	10	17	24

April

S		1	8	15	22
M	--	2	9	16	23
Tu		3	10	17	24
W		4	11	18	25
Th		5	12	19	26
F		6	13	20	27
S		7	14	21	28

May

S			6	13	20
M			7	14	21
Tu		1	8	15	22
W		2	9	16	23
Th		3	10	17	24
F	--	4	11	18	25
S	--	5	12	19	26

June

S			3	10	17
M	--	--	4	11	18
Tu	--	--	5	12	19
W			6	13	20
Th			7	14	21
F		1	8	15	22
S		2	9	16	23

July

S			1	8	15
M			2	9	16
Tu	--		3	10	17
W			4	11	18
Th	--		5	12	19
F			6	13	20
S			7	14	21

August

S	--		5	12	19
M	--		6	13	20
Tu			7	14	21
W		1	8	15	22
Th		2	9	16	23
F	--	3	10	17	24
S		4	11	18	25

September

S	--		2	9	16
M			3	10	17
Tu			4	11	18
W			5	12	19
Th	--		6	13	20
F			7	14	21
S		1	8	15	22

October

S			7	14	21
M		1	8	15	22
Tu		2	9	16	23
W		3	10	17	24
Th		4	11	18	25
F		5	12	19	26
S		6	13	20	27

November

S	--		4	11	18
M	--		5	12	19
Tu			6	13	20
W	--		7	14	21
Th	--	1	8	15	22
F		2	9	16	23
S		3	10	17	24

December

S			2	9	16
M			3	10	17
Tu			4	11	18
W	--	--	5	12	19
Th	--	--	6	13	20
F	--	--	7	14	21
S	--	1	8	15	22



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Nicilia	3512
Nampur	3501
Soudan	3506
Nyasa	3505
Syria	3505
Sardina	3500
Candia	3462
Melita	3464
Banca	3466
Siroia	3464
Salsette	3462
Jais	1729
Osiria	1728
• •	15622
• •	15622
Berrima	11127
Borda	11126
Balfour	11129
Bethana	11129
Bemalla	11118
Commonwealth	5618

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India in 1915.

When the war broke out the general expectation in India was that it would be of brief duration. The warnings of those who appreciated the magnitude of the interests which many had at stake, the elaborateness of the preparations which she had made to achieve it, and the tenacity which was revealed by Prussians in the Seven Years War were indeed they were swept aside by those who dictated an early and complete victory. It would be idle to pretend that the successes of the German army in the East of Europe and the inability of the Allies to wrest more than a few miles at a time from the foe in the West, with the conviction that this must be a war of attrition did not produce a reaction in the nature of depression. It has not produced a slight relaxation of the determination of India to do with her whole resources to the effort to assist by every means the prodigious efforts of the Empire to bring the war to a successful conclusion.

The war has come home to India in no appreciable degree. Over two hundred thousand men have been sent to the various theatres of the struggle. The cream of British manhood, the country has been embodied in the ranks of Officers. A perpetual stream of reinforcements has passed through the ports of Bombay and Karachi, a constant stream of wounded and sick has returned from the front. But India is in some respects a military State. The Army in peace has occupied a much more important place in the work of the administration than it does in the United Kingdom. Consequently the amount of improvisation has been much smaller. The military machinery has been well adapted to meet the needs of the war. The social life of the country has been almost unimpaired. The principal commodities as in the past have been plentiful and reasonably cheap. Bankers have complied with the demands of the Government for a plethora of funds. Not once has the all-India railway failed to bring its weekly budget of news, nor has the cable either broken down or been interrupted. Then the fortunes of the land have been in the ascendant. The year of the war witnessed one of the most successful harvests in recent history and India, an agricultural country is still dependent on the crops. There were many anxious months in 1915 when the erratic character of the monsoon seemed to presage acute scarcity, certain areas in the West and famine in parts of the Punjab. Late rains of almost unprecedented volume however saved the situation. The harvest will be good over the greater part of India, and scarcity will be confined to small areas.

Behind this tranquil exterior there are, of course, strong forces at work. The strain of the war is increasingly felt with the prolongation of the war. Hitherto India has escaped any additional taxation. It is almost certain that war tax will be imposed in the next Budget.

Whilst economy has been exercised by depending on borrowings India has during the current year maintained an active programme of public works and an average expenditure on education and sanitation. The London money market is closed to India and as her resources are limited the borrowing programme will be curtailed and the public works operations consequently proportionately diminished. Further and rigid economy will have to be practised in all public departments. There are signs that the actual shock of battle may be brought nearer to India. The advent of Germany into the Balkans may well mean further attacks on the Suez Canal and increased Turkish activity in Mesopotamia. In the latter region the progress of a force wholly provided and equipped by India has been brilliant in the face of the most severe climatic and natural obstacles. The small forces assembled have expelled the Turk from Southern Mesopotamia and have conquered Iraq. The political trust, loyally observed by all parties, has evidently grown unattractive to some spirits and there are signs of a revival of political activity which aims at the political growth of India does not desire to wait until the end of the war for the necessary action. There have been in the evidence during the trial of the Labor conspirators and the continuance of anarchical activity in Bengal proof of the existence of a small band of anarchists in India determined to try and overthrow the British Government even if it has to plunge the country into chaos in order to achieve it.

When however these symptoms appear we have to consider the size of India and the nature of its government. India is not a single homogeneous country. It is a continent occupied by people wide as the Polar wastes. It contains three hundred and fifteen millions of people, a growing proportion of whom are educated in English and imbued with the ideas reflected in English literature. It is inevitable that in such circumstances the seeds of political growth we have implanted should desire to flourish. It was wisely said by an Indian administrator that in time of war there must be a few mad dogs about. The matter for surprise is that they have been so few.

These features in the Indian situation have been briefly touched upon because if they are not understood they will cause misunderstanding when they are manifested. They are the inevitable outcome of Indian conditions and of the political growth even in war time of a great and varied country. They do not present any problem that need cause anxiety during the war. In the opinion of many competent to judge they do not present any problem beyond the capacity of resolute and far-seeing statesmanship after the war. They do not affect by one iota the determination of India to see this war through as a loyal, devoted and solid component of the British Empire.

The History of India in Outline.

No history of India can be proportionate, and the briefest summary must suffer from the same defect. Even a wholesale acceptance as history of mythologic tradition and folk-lore will not make good, though it makes picturesque, the many gaps that exist in the early history of India and though the labours of modern geographers and archaeologists have been amazingly fruitful, it cannot be expected that these gaps will ever be filled to any appreciable extent. Approximate accuracy in chronology and an outline of dynamic facts are all that the student can look for up to the time of Alexander though the briefest excursion into the by ways of history will reveal to him many alluring and mysterious fields for speculation. There are, for example to this day castles that believe they sprang originally from the loins of a being who landed "from an impossible boat on the shores of a highly improbable sea" and the great epic poems contain plentiful statements equally difficult of reconciliation with modern notions of history as a science. But from the Jataka stories and the Puranas, much valuable information is to be obtained and for the benefit of those unable to go to these and other original sources, it has been distilled by a number of writers.

The orthodox Hindu begins the political history of India more than 3000 years before Christ with the war waged on the banks of the Jumna between the sons of Kuru and the sons of Pandu but the modern critic prefers to omit several of those remote centuries and to take 600 B. C., or thereabouts as his starting point. At that time much of the country was covered with forest but the Aryan men who had entered India from the north had established in parts a form of civilization far superior to that of the aboriginal savages and to this day there survive climes like Benares founded by those invaders. In like manner the Dravidian invaders from an unknown land who overran the Deccan and the Southern part of the Peninsula crushed the aborigines, and at a much later period were themselves subdued by the Aryans. Of these two civilizing forces, the Aryan is the better known and of the Aryan kingdoms the first of which there is authentic record is that of Magadha or Bihar on the Ganges. It was in or near this powerful kingdom that Jainism and Buddhism had their origin and the fifth King of Magadha Bimbisara by name, was the friend and patron of Gautama Buddha. The King mentioned was a contemporary of Darius, autocrat of Persia (321 to 485 B. C.) who annexed the Indus valley and formed from his conquest an Indian satrapy which paid as tribute the equivalent of about one million sterling. Detailed history however does not become possible until the invasion of Alexander in 326 B. C.

Alexander the Great.

That great soldier had crossed the Hindu Kush in the previous year and had captured Aornoe, on the Upper Indus. In the spring of 326 he crossed the river at Ohind received the submission of the King of Taxila and marched against Porus who ruled the fertile country between the rivers Hydaspes (Jhelum) and

Akesides (Chenab). The Macedonian carried all before him, defeating Porus at the battle of the Hydaspes, and crossing the Chenab and Beas. But at the River Hyphasis (Bias) his weary troops mutinied, and Alexander was forced to turn back and retire to the Jhelum where a fleet to sail down the rivers to the sea was nearly ready. The wonderful story of Alexander's march through Mekan and Persia to Babylon and of the voyage of Nearchus up the Persian Gulf is the climax to the narrative of the invasion but is not part of the history of India. Alexander had stayed nineteen months in India and left behind him officers to carry on the Government of the kingdoms he had conquered but his death at Babylon, in 323 destroyed the fruits of what has to be regarded as nothing but a brilliant raid, and within two years his successors were obliged to leave the Indian provinces heavily scarred by war but not hellenized.

The leader of the revolt against Alexander's generals was a young Hindu Chandragupta, who was an illegitimate member of the Royal Family of Magadha. He dethroned the ruler of that kingdom and became so powerful that he is said to have been able to place 600 000 troops in the field against Seleucus, to whom Babylon had passed on the death of Alexander. This was too formidable an opposition to be faced and a treaty of peace was concluded between the Syrian and Indian monarchs which left the latter the first paramount Sovereign of India (321 B. C.) with his capital at Pataliputra, the modern Patna and Bankipore. Of Chandragupta's court and administration a very full account is preserved in the fragments that remain of the history compiled by Megasthenes the ambassador sent to India by Seleucus. His memorable reign ended in 297 B. C. when he was succeeded by his son Bindusara who in his turn was succeeded by Asoka (269—232 B. C.) who recorded the events of his reign on numerous inscriptions. This king in an unusually bloody war added to his dominions the kingdom of Kalinga (the Northern Orissa) and then becoming a convert to Buddhism resolved for the future to abstain from conquest by force of arms. The consequences of the conversion of Asoka were amazing. He was not intolerant of other religions, and did not endeavour to force his creed on his children. But he initiated measures for the propagation of his doctrine with the result that Buddhism, which had hitherto been a merely local sect in the valley of the Ganges, was transformed into one of the greatest religions of the world—the greatest, probably, if measured by the number of adherents. This is Asoka's claim to be remembered this is it which makes his reign an epoch not only in the history of India, but in that of the world. The wording of his edicts reveal him as a great king as well as a great missionary and it is to be hoped that the excavations now being carried on in the ruins of his palace may throw yet more light on his character and times. On his death the Maurya kingdom fell to pieces. Even during his reign there had been signs of new forces at work on the borderland of India, where the inde-

ancient kingdoms of Bactria and Parthia had been formed and subsequent to it there were frequent Greek raids into India. The Greeks in Bactria, however, could not withstand the overwhelming force of the westward migration of the Yueh-chi horde which, in the first century A.D. also ousted the Indo-Parthian kings from Afghanistan and North Western India.

The first of these Yueh-chi kings to annex a part of India was Kadphises II (A.D. 85-125) who had been defeated in a war with China but crossed the Indus and consolidated his power eastward as far as Benares. His son Kanishka (whose date is much disputed) left a name which to Buddhists stands second only to that of Asoka. He greatly extended the boundaries of his empire in the North and made Peshawar his capital. Under him the power of the Kushan clan of the Yueh-chi reached its zenith and did not begin to decay until the end of the second century concurrently with the rise in middle India of the Andhra dynasty which constructed the Amaravati stupa, one of the most elaborate and precious monuments of plety ever raised by man.

The Gupta Dynasty

Early in the fourth century there arose at Pataliputra the Gupta dynasty which proved of great importance. Its founder was a local chief, the son of Samudragupta, who ruled for some fifty years from A.D. 326 was a king of the greatest distinction. His aim of subduing all India was not indeed fulfilled but he was able to exact tribute from the kingdoms of the South and even from Ceylon and, in addition to being a warrior he was a patron of the arts and of Sanskrit literature. The rule of his son Chandragupta was equally distinguished and is commemorated in an inscription on the famous iron pillar near Delhi, as well as in the writings of the Chinese pilgrim Fa-hien who pays a great tribute to the equitable administration of the country. It was not until the middle of the fifth century that the fortunes of the Gupta dynasty began to decline. In fact the last of the White Huns appeared in Central India by 480 the dynasty had disappeared. The following century all over India was one of great confusion apparently marked only by the rise and fall of petty kingdoms until a monarch arose, in A.D. 606 capable of consolidating an Empire. This was the Emperor Harsha who from Thanesar near Ambala conquered Northern India and extended his territory South to the Nerbudda. Imitating Asoka in many ways, this Emperor yet felt no embarrassment in paying adoration in turn to Shiva, the Sun and Buddha at a great public ceremony. Of his times a graphic picture has been handed down in the work of a Chinese Master of the Law Hsuen Tsang by name. Harsha was the last native paramount sovereign of Northern India. On his death in 648 his throne was usurped by a Minister whose treacherous conduct towards an embassy from China was quickly avenged and the kingdom so laboriously established lapsed into a state of internecine strife which lasted for a century and a half.

The Andhras and Rajputs.

In the meantime in Southern India the Andhras had attained to great prosperity and

carried on a considerable trade with Greece, Egypt and Rome, as well as with the East. Their domination ended in the fifth century A.D. and a number of new dynasties, of which the Pallavas were the most important, began to appear. The Pallavas made way in turn for the Chalukyas who for two centuries remained the most important Deccan dynasty, one branch uniting with the Cholas. But the fortunes of the Southern dynasties are so involved and in many cases so little known that to recount them briefly is impossible. Few names of note stand out from the record, except those of Vikramaditya (11th century) and a few of the later Hindu rulers who made a stand against the growing power of Islam of the rise of which an account is given below. In fact the history of medieval India is singularly devoid of unity. Northern India was in a state of chaos from about 650 to 900 A.D. not unlike that which prevailed in Europe of that time and materials for the history of three centuries are very scanty. In the absence of any powerful rulers the jungle began to gain back what had been wrested from it. Ancient capitals fell into ruins from which in some cases they have not even yet been disturbed and the aboriginal and various foreign tribes began to assert themselves so successfully that the Arvan element was chiefly confined to the Doab and the Eastern Punjab. It is not therefore so much for the political as for the religious and social history of this anarchical period that one must look. And the greatest event—if a slow process may be called an event—of the middle ages was the transition from tribe to caste, the final disappearance of the old four fold division of Brahmans, Kshatriyas, Vaisyas, and Sudras and the formation of the new division of pure and impure largely resting upon a classification of occupations. But this social change was only a part of the development of the Hindu religion into a form which would include in its embrace the many barbarians and foreigners in the country who were outside it. The great political event of the period was the rise of the Rajputs as warriors in the place of the Kshatriyas. Their origin is obscure but they appeared in the 8th century and spread from their two original homes in Rajasthan and Oudh into the Punjab, Kashmir and the Central Himalayas, assimilating a number of fighting clans and binding them together with a common code. At this time Kashmir was a small kingdom which exercised an influence on India wholly disproportionate to its size. The only other kingdom of importance was that of Kanauj—in the Doab and Southern Oudh—which still retained some of the power to which it had reached in the days of Harsha, and of which the renown extended to China and Arabia.

With the end of the period of anarchy the political history of India centres round the Rajputs. One clan founded the kingdom of Gujarat another held Malwa another (the Chauhan) founded a kingdom of which Ajmer was the capital, and so on. Kanauj fell into the hands of the Pathans (c. 1040 A.D.) and the dynasty then founded by that branch of the Gaharwars of Benares became one of the most famous in India. Later in the same century the Chauhans were united, and by

1163 one of them could boast that he had conquered all the country from the Vindhya to the Himalayas, including Delhi already a fortress a hundred years old. The son of this conqueror was Prithwi Raj the champion of the Hindus against the Mahomedans. With his death in battle (1192) ends the golden age of the new civilization that had been evolved out of chaos and of the greatness of that age there is a splendid memorial in the temples and forts of the Rajput states and in the two great philosophical systems of Sanakacharya (ninth century) and Ramanuja (twelfth century). The triumph of Hinduism had been achieved, it must be added at the expense of Buddhism, which survived only in Mazodha at the time of the Mahomedan conquest and speedily disappeared there before the new faith.

Mahomedan India

The wave of Mahomedan invaders that eventually swept over the country first touched India in Sind less than a hundred years after the death of the Prophet in 632. But the first real contact was in the tenth century when a Turkish slave of a Persian ruler founded a kingdom at Ghazni between Kabul and Kandahar. A descendant of his, Mahmud (967-1030) made repeated raids into the heart of India capturing places so far apart as Multan, Kannauj, Gwalior and Somnath in Kathiawar but permanently occupying only a part of the Punjab. Enduring Mahomedan rule was not established until the end of the twelfth century by which time from the little territory of Ghor there had arisen one Mahmud Ghori capable of carving out a kingdom stretching from Rohwar to the Bay of Bengal. Prithwi Raj, the Chandel ruler of Delhi and Ajmer, made a brave stand against and once defeated one of the armies of this ruler but was himself defeated in the following year. Mahmud Ghori was murdered at Lahore (1206) and his vast kingdom which had been governed by satraps, was split up into what were practically independent sovereignties. Of these satraps, Qutb ud-din the slave ruler of Delhi and Lahore was the most famous, and is remembered by the great mosque he built near the modern Delhi. Between his rule and that of the Mughals, which began in 1526 only a few of the many kings who governed and fought and built beautiful buildings, stand out with distinction. One of these was Ala-ud-din (1296-1316) whose many expeditions to the south much weakened the Hindu Kings and who proved himself to be a capable administrator. Another was Firuz Shah, of the house of Tughlaq whose administration was in many respects admirable but which ended on his abdication in confusion. In the reign of his successor Mahmud (1358-1413) the kingdom of Delhi went to pieces and India was for seven months at the mercy of the Turkish conqueror Timur. It was the end of the fifteenth century before the kingdom, under Sikandar Lodi began to recover. His son Ibrahim, still further extended the kingdom that had been recreated but was defeated by Babar, King of Kabul, at Panipat, near Delhi, in 1556, and there was then established in India the Mughal dynasty.

The Mahomedan dynasties that had ruled in explain other than Delhi up to this date

were of comparative unimportance, though some great men appeared among them. In Gujarat for example, Ahmad Shah the founder of Ahmedabad showed himself a good ruler and builder as well as a good soldier though his grandson Mahmud Shah Begara was a greater ruler—acquiring fame at sea as well as on land. In the south various kings of the Bahamani dynasty made names for themselves especially in the long wars they waged on the new Hindu kingdom that had arisen which had its capital at Vijayanagar. Of importance also was Adil Khan a Turk who found (1490) the Bijapur dynasty of Adil Shahis. It was one of his successors who crushed the Vijayanagar dynasty and built the great mosque for which Bijapur is famous.

The Mughal Empire

As one draws near to modern times it becomes impossible to present anything like a coherent and consecutive account of the growth of India as a whole. Details of threads in the story have to be picked up one by one and followed to their ending and although the sixteenth century saw the first European settlement in India, it will be convenient here to continue the narrative of Mahomedan India almost to the end of the Mughal Empire. How Babar gained Delhi has already been told. His son Humayun greatly extended his kingdom, but was eventually defeated (1540) and driven into exile by Sher Khan an Afghan of great capabilities, whose short reign ended in 1545. The Nur dynasty thus founded by Sher Khan lasted another six years when Humayun having snatched Kabul from one of his brothers, was strong enough to win back part of his old kingdom. When Humayun died (1556) his eldest son, Akbar, was only 13 years old and was confronted by many rivals. Nor was Akbar well served but his career of conquest was almost uninterrupted and by 1594 the whole of India North of the Nerbudda had bowed to his authority and he subsequently entered the Deccan and captured Ahmednagar. This great ruler who was as remarkable for his religious tolerance as for his military prowess died in 1605 leaving behind him a record that has been surpassed by few. His son Jehangir who married the Persian lady Nur Jahan ruled until 1627 bequeathing to an admiring posterity some notable buildings—the tomb of his father at Sikandra, part of the palace at Agra and the palace and fortress of Lahore. His son, Shahjahan was for many years occupied with wars in the Deccan but found time to make his court of incredible magnificence and to build the most famous and beautiful of all tombs, the Taj Mahal as well as the fort palace and Juma Masjid at Delhi. The quarrels of his sons led to the deposition of Shahjahan by one of them Aurangzeb in 1658. This Emperor's rule was one of constant intrigue and fighting in every direction, the most important of his wars being a twenty five years struggle against the Marathas of the Deccan who under the leadership of Shivaji, became a very powerful nation in Indian politics. His bigoted attitude towards Hinduism made Aurangzeb all the more anxious to establish his Empire on a firm basis in the south, but he was unable to hold his many conquests, and on his death (1707) the

Empire for which his three sons were fighting could not be held together. Internal disorder and Maratha encroachments continued during the reigns of his successors and in 1739 a fresh danger appeared in the person of Nadir Shah the Persian conqueror who carried all before him. On his withdrawal leaving Mahomed Shah on the throne the old intrigues recommenced and the Marathas began to make the most of the opportunity offered to them by puppet rulers at Delhi and by almost universal discord throughout what had been the Moghal Empire. There is little to add to the history of Mahomedan India Emperors continued to reign in name at Delhi up to the middle of the 19th century but their authority and power had long since disappeared being swallowed up either by the Marathas or by the British.

European Settlements

The voyage of Vasco da Gama to India in 1498 was what turned the thoughts of the Portuguese to the formation of a great Empire in the East. That idea was soon realized for from 1500 onwards, constant expeditions were sent to India and the first two Viceroy's in India—Almeida and Albuquerque—laid the foundations of a great Empire and of a great trade monopoly. Goa taken in 1510 became the capital of Portuguese India and remains to this day in the hands of its captors and the countless ruins of churches and forts on the shores of Western India as also farther East at Malacca testify to the zeal with which the Portuguese endeavoured to propagate their religion and to the care they took to defend their settlements. There were great soldiers and great misalonnaires among them—Albuquerque da Cunha da Castro in the former class, St. Francis Xavier in the latter. But the glory of Empire loses something of its lustre when it has to be paid for and the constant drain of men and money from Portugal necessitated the attacks made on her possessions in India and Malaya. The junction with Spain in 1580 lasted from 1580 to 1640 also tended to the downfall of the Eastern Empire and when Portugal became independent again it was unequal to the task of competing in the East with the Dutch and English. The Dutch had little difficulty in winning the greater part of their territory from the Portuguese but the seventeenth century naval wars with England forced them to relax their hold upon the coast of India and during the French wars between 1795 and 1811 England took all Holland's Eastern possessions and the Dutch have left in India but few traces of their civilization and of the once powerful East India Company of the Netherlands.

The first English attempts to reach India date from 1498 when Cabot tried to find the North-West passage and these attempts were repeated all through the sixteenth century. The first Englishman to land in India is said to have been one Thomas Stephens (1579) who was followed by a number of merchant adventurers but trade between the two countries really dates from 1600 when Elizabeth incorporated the East India Company which had been formed in London. Factories in India were founded only after Portuguese and Dutch opposition had been overcome, notably in the

sea fight off Swally (Suvali) in 1612. The first factory at Surat was for many years the most important English foothold in the East. Its establishment was followed by others, including Fort St. George Madras, (1640) and Hughli (1651). In the history of these early years of British enterprise in India the cession of Bombay (1661) as part of the dowry of Catherine of Braganza stands out as a landmark. It also illustrates the weakness of the Portuguese at that date since in return the King of England undertook to protect the Portuguese in India against their foes—the Marathas and the Dutch. Cromwell, by his treaty of 1654 had already obtained from the Portuguese an acknowledgment of England's right to trade in the East and that right was now threatened not by the Portuguese but by Shivaji and by the general disorder prevalent in India. Accordingly in 1686 the Company turned its attention to acquiring territorial power and announced its intention to establish such a policy of civil and military power and create and secure such a large revenue as may be the foundation of a large well grounded, sure English dominion in India for all time to come. Not much came of this announcement for some time and no stand could be made in Bengal against the depredations of Aurangzeb. The foundations of Calcutta (1690) could not be laid by Job Charnock until after a humiliating peace had been concluded with that Emperor and owing to the difficulties in which the Company found itself in England, there was little chance of any immediate change for the better. The union of the old East India Company with the new one which had been formed in rivalry to it took place in 1708 and for some years peaceful development followed though Bombay was always exposed by sea to attacks from the pirates who had many strongholds within easy reach of that port, and on land to attacks from the Marathas. The latter danger was felt also in Calcutta. Internal dangers were numerous and still more to be feared. More than one mutiny took place among the troops sent out from England and rebellions like that led by Kelgwin in Bombay threatened to stifle the infant settlements. The public health was bad and the rate of mortality was at times appalling. To cope with such conditions strong men were needed and the Company was in this respect peculiarly fortunate. The long list of its servants, from Oxenden and Aungler to Hastings and Raffles, contains many names of men who proved themselves good rulers and far-sighted statesmen. The finest Empire-builders the world has known. Attempts to compete with the English were made of course. But the schemes of the Emperor Charles VI to secure a share of the Indian trade were not much more successful than those made by Scotland, Denmark, Sweden and Russia. By the French who founded Pondicherry and Chandernagore towards the end of the 17th century much more was achieved, as will be seen from the following outline of the development of British rule.

The French Wars.

When war broke out between England and France in 1744 the French had occupied a

strong position in Southern India, which had become independent of Delhi and was divided into three large States—Hyderabad, Tanjore and Mysore—and a number of petty states under local chieftains. In the affairs of these States Dupleix when Governor of Pondicherry had intervened with success and when Madras was captured by a French squadron under La Bourdonnais (1746) Dupleix wished to hand it over to the Nawab of Arcot—a deputy of the Nizams who ruled in the Carnatic. The French however kept Madras, repelling an attack by the disappointed Nawab as well as the British attempts to recapture it. The treaty of Aix la Chapelle restored Madras to the English. The fighting had shown the Indian powers the value of European troops and this was again shown in the next French war (1750-54) when Clive achieved enduring fame by his capture and subsequent defence of Arcot. This war arose from Dupleix supporting candidates for the disputed successions at Arcot and Hyderabad while the English at Madras put forward their own nominees. One of Dupleix's officers the Marquis de Bussy persuaded the Nizam to take into his pay the army which had established his power and in return the Northern Circars between Orissa and Madras, was granted to the French. This territory however was captured by the English in the seven years' war (1756-63). Dupleix had by then been recalled to France. Lally who had been sent to drive the English out of India captured Fort St. David and entered Madras. But the victory which Colonel (Sir Eyre) Coote won at Wandiwash (1760) and the surrender of Pondicherry and Gingee put an end to the French ambitions of Empire in Southern India. Pondicherry passed more than once from one nation to the other before settling down to its present existence as a French colony in miniature.

Battle of Plassey

While the English were fighting the third French war in the south they became involved in grave difficulties in Bengal where Siraj-ud-Daula had succeeded to power. The head quarters of the English at Calcutta were threatened by that ruler who demanded they should surrender a refuge and should cease building fortifications. They refused and he marched against them with a large army. Some of the English took to their ships and made off down the river the rest surrendered and were cast into the jail known as the "Black Hole." From this small and stifling prison 23 persons out of 146 came out alive the next day. Clive who was at Madras, immediately sailed for Calcutta with Admiral Watson's squadron recaptured the town (1757), and as war with the French had by a proclamation proceeded to take Chanderannagore. The Nawab Siraj-ud-Daula then took the side of the French, and Clive, putting forward Mir Jafar as candidate for the Nawab's throne, marched out with an army consisting of 900 Europeans, 2,000 sepoy and 3 pieces of artillery against the Nawab's host of over 50,000. The result was the historic battle of Plassey (June 23) in which Clive, after hesitating on the course to be pursued, routed the Nawab. Mir Jafar was put on the throne

at Murshidabad, and the price of this honour was put at £ 2,340,000 in addition to the grant to the Company of the land round Calcutta now known as the District of the twenty four Parganas. In the year after Plassey Clive was appointed Governor of Bengal and in that capacity sent troops against the French in Madras and in person led a force against the Oudh army that was threatening Mir Jafar. In each case with success. From 1760 to 1765 Clive was in England. During his absence the Council at Calcutta deposed Mir Jafar and, for a price put Mir Kasim in his place. This ruler moved his capital to Monghyr, organized an army and began to intrigue with the Nawab Wazir of Oudh. He soon found in a dispute over customs dues, an opportunity of quarrelling with the English and the first shots fired by his followers were the signal for a general rising in Bengal. About 200 Englishmen and a number of sepoy were massacred but his trained regiments were defeated at Gheria and Oodeynullah and Mir Kasim sought protection from the Nawab of Oudh. But in 1764 after quelling a sepoy mutiny in his own camp by blowing 24 ring leaders from the guns Major (Sir Hector) Munro defeated the joint forces of Shah Alam, the Mughal Emperor and the Nawab of Oudh in the battle of Buxar. In 1765 Clive (now Baron Clive of Plassey) returned as Governor.

Two landmarks stand out in his policy. First he sought the substance although not the name of territorial power under the fiction of a grant from the Mughal Emperor. Second, he desired to purify the Company's service by prohibiting illicit gains, and by guaranteeing a reasonable pay from honest services. In neither respect were his plans carried out by his immediate successors. But our efforts towards a sound administration date from this second Governorship of Clive as our military supremacy dates from his victory at Plassey. Before leaving India, in 1765, he had readjusted the divisions of Northern India and had set up a system of Government in Bengal by which the English received the revenues and maintained the army while the criminal jurisdiction was vested in the Nawab. The performance of his second task the purification of the Company's service was hotly opposed but carried out. He died in 1774 by his own hand the House of Commons having in the previous year censured him though admitting that he did render great and meritorious services to his country.

Warren Hastings.

The dual system of government that Clive had set up proved a failure and Warren Hastings was appointed Governor in 1772 to carry out the reforms settled by the Court of Directors which were to give them the entire care and administration of the revenues. Thus Hastings had to undertake the administrative organization of India, and in spite of the tactless attitude of Philip Francis, with whom he fought a duel and of other members of his Council he reorganized the civil service, reformed the system of revenue collection, greatly improved the financial position of the Company, and created courts of justice and some semblance of a police force. From 1772 to 1774 he was Governor of Bengal, and from 1774 to 1776

he was the first Governor-General, nominated under an Act of Parliament passed in the previous year. His financial reforms, and the forced contributions he enacted from the rebellious Chet Singh and the Begam of Oudh, were interpreted in England as acts of oppression and formed together with his action in the trial of Nuncmar for forgery, the basis of his seven years' trial before the House of Lords which ended in a verdict of not guilty on all the charges. But there is much more for which his administration is justly famous. The recovery of the Marathas from their defeat at Panipat was the cardinal factor that influenced his policy towards the native states. One frontier was closed against Maratha invasion by the loss of a British brigade to the Nawab Wazir of Oudh, for his war against the Rohillas who were intriguing with the Marathas. In Western India he found himself committed to the two Maratha wars (1758-81) owing to the ambition of the Bombay Government to place its own nominee on the throne of the Peshwa at Poona, and the Bengal troops that he sent over made amends by the conquest of Gujarat and the capture of Gwalior for the disgrace of Wadgaon where the Marathas overpowered a Bombay army. In the South—where interference from Madras had already led (1769) to what is known as the first Mysore war—a disastrous campaign against Hyder Ali and the Nizam—he found the Madras Government again in conflict with those two potentates. The Nizam he won over by diplomacy, but against Hyder Ali he had to despatch a Bengal army under Sir Eyre Coote. Hyder Ali died in 1782 and two years later a treaty was made with his son Tipu. It was in these acts of intervention in distant provinces that Hastings showed to best advantage as a great and courageous man, cautious but swift in action and unrequited. He was succeeded after a long regnum by Lord Cornwallis (1785-93) who built on the foundations of his administration by Hastings, by checking criminal jurisdiction to Europeans and establishing an Appellate Court of Criminal Judicature at Calcutta. In the Civil Service he separated the functions of the District Collector and Judge and organised the "writers and merchants" of the Company into an administrative Civil Service. This system was subsequently extended to Madras and Bombay. Lord Cornwallis is better known for his introduction on orders from England of the Permanent Settlement in Bengal. (See article on Land Revenue). A third Mysore war was waged during his tenure of office which ended in the submission of Tipu Sultan. Sir John Shore (Lord Teignmouth), an experienced Civil Servant, succeeded Lord Cornwallis and in 1798 was followed by Lord Wellesley, the friend of Pitt whose projects were to change the map of India.

Lord Wellesley's Policy

The French in general and the Corsican in particular, were the enemy most to be dreaded for a few years before Lord Wellesley took up his duties in India, and he formed the scheme of definitively ending French schemes in Asia by placing himself at the head of a great Indian confederacy. He started by obtaining from the Nawab of Oudh the cession of

large tracts of territory in lieu of payments overdue as subsidies for British troops, he then won over the Nizam to the British side, and, after exposing the intrigues of Tipu Sultan with the French embarked on the fourth Mysore war which ended (1799) in the fall of Srirangapatam and the gallant death of Tipu. Part of Mysore, the Carnatic and Tanjore roughly constituting the Madras Presidency of to-day, then passed to British rule. The five Maratha powers—the Peshwa of Poona, the Gaekwar of Baroda, Sindhia of Gwalior, Holkar of Indore and the Raja of Nagpur—had still to be brought into the British net. The Peshwa after being defeated by Holkar fled to British territory and signed the Treaty of Basen which led to the third Maratha war (1802-04) as it was regarded by Sindhia and the Raja of Nagpur as a betrayal of Maratha independence. In this, the most successful of British campaigns in India, Sir Arthur Wellesley (the Duke of Wellington) and General (Lord) Lake carried all before them the one by his victories at Assaye and Argaum and the other at Aligarh and Laswari. Later operations such as Colonel Monson's retreat through Central India were less fortunate. The great acquisitions of territory made under Lord Wellesley proved so expensive that the Court of Directors, becoming impatient, sent out Lord Cornwallis a second time to make peace at any price. He however died soon after his arrival in India and Sir George Barlow carried on the government (1805-7) until the arrival of a stronger ruler, Lord Minto. He managed to keep the peace in India for six years and to add to British dominions by the conquest of Java and Mauritius. His foreign policy was marked by another new departure inasmuch as he opened relations with the Punjab, Persia and Afghanistan and concluded a treaty with Ranjit Singh at Lahore which made that Sikh ruler the loyal ally of the British for life.

The successor of Lord Minto was Lord Moira, who found himself obliged almost at once to declare war on the Gurkhas of Nepal, who had been encroaching on British territory. After initial reverses the English under General Ochterlony were successful and the Treaty of Sagauli (1816) was drawn up which defines British relations with Nepal to the present day. For this success Lord Moira was made Marquis of Hastings. In the same year he made preparations for the last Maratha war (1817-18) which was made necessary by the lawless conduct of the Pindaris, gang of Pathan or Rohilla origin whose chief patrons were the rulers of Native States. The large number of 120,000 that he collected for this purpose destroyed the Pindaris, annexed the dominions of the rebellious Peshwa of Poona, protected the Rajput States, made Sindhia enter upon a new treaty and compelled Holkar to give up part of his territory. Thus Lord Hastings established the British power more firmly than ever, and when he resigned, in 1823, all the Native States outside the Punjab had become parts of the political system and British interests were permanently secured from the Persian Gulf to Singapore. Lord Amherst followed Lord Hastings, and his five years' rule (1823-28) was memorable for the first Burmese war and the capture of Bharatpur. The former episode

tion was undertaken owing to the insolent demands and raids of the Burmese and resulted in the Burmese ceding Assam, Arakan and the coast of Martaban and their claims to the lower provinces. The capture of Bharatpur by Lord Combermere (1826) wiped out the republic which General Lake had received there twenty years earlier. A disputed succession on this occasion led to the British intervention.

Social Reform

A former Governor of Madras, Lord William Bentinck, was the next Governor-General. His epitaph by Macaulay says: "He abolished cruel rites, he effaced humiliating distinctions, he gave liberty to the expression of public opinion, his constant study was to elevate the intellectual and moral character of the nations committed to his charge."

Some of his financial reforms, forced on him from England, and his widening of the gates by which educated Indians could enter the service of the Company were most unpopular at the time, but were followed by the acts he took for the abolition of Sati or widow burning, and the suppression—with the help of Captain Sycman—of the professional hereditary assassins known as *Thugs*. In 1832 he annulled *Cachar* and, two years later, Coorg. The incompetence of the ruler of Mysore forced him to take that State also under British administration—where it remained until 1881. His rule was marked in other ways by the despatch of the first steamship that made the passage from Bombay to Suez, and by his settlement of the long educational controversy in favour of the advocates of instruction in English and the vernaculars. Lord William Bentinck left India (1835) with his programme of reforms unfinished. The new Charter Act of 1833 had brought to a close the commercial business of the Company and emphasized their position as rulers of an Indian Empire in trust for the Crown. By it the whole administration, as well as the legislation of the country, was placed in the hands of the Governor-General in Council and authority was given to create a Presidency of Agra. Before his retirement Bentinck assumed the statutory title of Governor-General of India (1834) thus marking the progress of consolidation since Warren Hastings in 1774 became the first Governor-General of Fort William. Sir Charles Metcalfe, being senior member of Council, succeeded Lord William Bentinck, and during his short tenure of office carried into execution his predecessor's measure for giving entire liberty to the press.

Afghan Wars.

With the appointment of Lord Auckland as Governor-General (1836-42) there began a new era of war and conquest. Before leaving London he announced that he looked with excitement to the prospect of "promoting education and knowledge, and of extending the blessings of good Government and happiness to millions in India, but his administration was almost exclusively comprised in a fatal expedition to Afghanistan, which dragged in its train the annexation of Sind, the Sikh wars, and the incursions of Baluchistan in the protectorate of India. The first Afghan war was undertaken partly to counter the Russian advance

in Central Asia and partly to place on the throne at Kabul the dethroned ruler Shah Shuja in place of Dost Mahomed. The latter object was easily attained (1839) and for two years Afghanistan remained in the military occupation of the British. In 1841 Sir Alexander Burnes was assassinated in Kabul and Sir William Macmagonen suffered the same fate in an interview with the son of Dost Mahomed. The British commander in Kabul, Gen. Pollock, was old and feeble and after two months delay he led his army of 4,500 and 12,000 camp followers back towards India in the depth of winter. Between Kabul and Jallalabad the whole force perished either at the hands of the Afghans or from cold and Dr Brydon was the only survivor who reached the latter city. Lord Ellenborough succeeded Lord Auckland and was persuaded to send an army of retribution to relieve Jallalabad. One force under Gen. Pollock relieved Jallalabad and marched on Kabul, while Gen. Nott, advancing from Kandahar, captured Ghazni and joined Pollock at Kabul (1842). The bazaar at Kabul was blown up, the prisoners rescued and the army returned to India leaving Dost Mahomed to take undisputed possession of his throne. The drama ended with a bombastic proclamation from Lord Ellenborough and the parade through the Punjab of the (spurious) gates of Somnath taken from the tomb of Mahmud of Ghazni.

Sikh Wars.

Lord Ellenborough's other wars—the conquest of Sind by Sir Charles Napier and the suppression of an outbreak in Gwalior—were followed by his recall and the appointment of Sir Henry (1st Lord) Hardinge to be Governor-General. A soldier Governor-General was not unacceptable for it was felt that a trial of strength was imminent between the British and the remaining Hindu powers in India, the Sikhs. Ranjit Singh, the founder of the Sikh Kingdom, had died in 1839, but by the end of the treaty he had made very considerable thirty years earlier. He left no son capable of ruling and the *Khalas* or central council of the Sikh army was burning to measure its strength with the British sepoy. The intrigues of two men, Lal Singh and Faj Singh, to obtain the supreme power led to their crossing the Sutlej and invading British territory. Sir Hugh Gough, the Commander-in-Chief and the Governor-General hurried to the frontier, and within three weeks four pitched battles were fought—at Mudki, Ferozeshah Aliwal and Sohraon. The Sikhs were driven across the Sutlej and Lahore surrendered to the British, but the province was not annexed. By the terms of peace the infant Duleep Singh was recognized as Rajah. Major Henry Lawrence was appointed Resident, to assist the Sikh Council of Regency, at Lahore. The Jullundur Doab was added to British territory, the Sikh army was limited and a British force was sent to garrison the Punjab on behalf of the child Rajah. Lord Hardinge returned to England (1845) and was succeeded by Lord Dalhousie, the greatest of Indian proconsuls.

Dalhousie had only been in India a few months when the second Sikh war broke out. In the attack on the Sikh position at Chillianwallah the British lost 2,400 officers and men.

besides four guns and the colours of three regiments but before reinforcements could arrive from England, bringing Sir Charles Napier as Commander-in-Chief Lord Gough had restored his reputation by the victory of Guilat which absolutely destroyed the Sikh army. As a consequence the Punjab was annexed and became a British province (1849) its pacification being so well carried out, under the two Lawrences that on the out break of the Mutiny eight years later it remained not only quiet but loyal. In 1852 Lord Dalhousie had again to embark on war this time in Burma owing to the ill treatment of British merchants in Rangoon. The lower valley of the Irawaddy was occupied from Rangoon to Prome and annexed under the name of Pegu, to those provinces that had been acquired in the first Burmese war. British territories were enlarged in many other directions during Lord Dalhousie's tenure of office. His doctrine of lapse by which British rule was substituted for Indian in States where continued misrule or the failure of a dynasty made this change possible came into practice in the cases of Satara, Jhansi and Nagpur (which last named State became the Central Provinces) where the rulers died without leaving male heirs. Oudh was annexed on account of its misrule. Dalhousie left many other marks on India. He reformed the administration from top to bottom, founded the Public Works Department, initiated the railways, telegraphs and postal system and completed the great Ganges canal. He also detached the Government of Bengal from the charge of the Governor-General and summoned representatives of the local Governments to the deliberations of the Government of India. Finally in education he laid down the lines of a department of public instruction and initiated more practical measures than those devised by his predecessors. It was his misfortune that the mutiny which so gloriously followed his administration was by many ascribed in England to his pacifistic change.

Sepoy Mutiny

Dalhousie was succeeded by Lord Canning in 1856 and in the following year the sepoys of the Bengal army mutinied and all the valley of the Ganges from Delhi to Patna rose in rebellion. The causes of this convulsion are difficult to estimate but are probably to be found in the unrest which followed the progress of English civilisation in the spreading of false rumours that the whole of India was to be subdued in the confidence the sepoy troops had acquired in themselves under British leadership and in the ambition of the educated classes to take a greater share in the government of the country. Added to this there was in the deposed King of Delhi, Bahadur Shah, a centre of growing disaffection. Finally there was the story—not devoid of truth—that the cartridges for the new Enfield rifle were greased with fat that rendered them unclean for both Hindus and Mahomedans. And when the mutiny did break out it found the Army without many of its best officers who were employed in civil work and the British troops reduced, in spite of Lord Dalhousie's warnings, below the number he considered essential for safety. On May 10

the sepoys at Meerut rose in mutiny, cut down a few Europeans and, unchecked by the large European garrison, went off to Delhi. There next morning the Mahomedans rose. From that centre the mutiny spread through the North Western Provinces and Oudh into Lower Bengal. Rising in the Punjab were put down by Sir John Lawrence and his subordinates who armed the Sikhs, and with their help reduced the sepoys and Lawrence was subsequently able to send a strong body of Sikhs to aid in the siege of Delhi. The native armies of Madras and Bombay remained for the most part true to their colours. In Central India, the contingents of some of the great chiefs joined the rebels, but Hyderabad was kept loyal by the influence of its minister Sir Salar Jung.

The interest of the war centres round Delhi, Cawnpore and Lucknow though in other places massacres and fighting occurred. The siege of Delhi began on June 8 when Sir Henry Barnard occupied the Ridge outside the town. Barnard died of cholera early in July and Thomas Reed, who took his place was obliged through illness to hand over the command to Archdale Wilson. In August Nicholson arrived with a reinforcement from the Punjab. In the meantime the rebel force in Delhi was constantly added to by the arrival of new bodies of mutineers. Attacks were frequent and the looses heavy cholera and sunstroke carried off many victims on the Ridge and when the final assault was made in September the Delhi army could only parade 4,720 infantry of whom 1,940 were Europeans. The arrival of siege guns made it possible to advance the batteries on September 8 and by the 13th a breach was made. On the following day three columns were led to the assault a fourth being held in reserve. Over the ruins of the Kashmir Gate, blown in by Bomba and Salkeld, Col. Campbell led his men and Nicholson turned up his troops within the walls. By nightfall the British with a loss of nearly 1,200 killed and wounded, had only secured a foothold in the city. Six days street fighting followed and Delhi was won, but the gallant Nicholson was killed at the head of a storming party. Bahadur Shah was taken prisoner and his two sons were shot by Captain Hudson.

Massacre at Cawnpore.

At Cawnpore the sepoys mutinied on June 27 and found in Nana Sahib the heir of the last Peshwa a willing leader in spite of his former professions of loyalty. There a European force of 240 with six guns had to protect 870 non-combatants and held out for 23 days, surrendering only on the guarantee of the Nana that they should have a safe conduct as far as Allahabad. They were embarking on the boats on the Ganges when fire was opened on them, the men being shot or hacked to pieces before the eyes of their wives and children and the women being mutilated and murdered in Cawnpore to which place they were taken back. Their bodies were thrown down a well just before Havelock having defeated the Nana's forces arrived to the relief. In Lucknow a small garrison held out in the Residency from July 2 to September 25 against tremendous odds and enduring the most fearful hardships. The relieving force, under Havelock and Outram, was itself invested, and the garrison was

not finally delivered until Sir Colin Campbell arrived in November. Fighting continued for 18 months in Oudh, which Sir Colin Campbell finally reduced, and in Central India, where Sir Hugh Rose waged a brilliant campaign against the disinherited Rani of Jhansi—who died at the head of her troops—and Tantia Topi.

Transfer to the Crown

With the end of the mutiny there began a new era in India strikingly marked at the outset by the Act for the Better Government of India (1858) which transferred the entire administration from the Company to the Crown. By that Act India was to be governed by and in the name of the Sovereign through a Secretary of State assisted by a Council of fifteen members. At the same time the Governor-General received the title of Viceroy. The European troops of the Company numbering about 24,000 officers and men were—greatly resenting the transfer—amalgamated with the Royal service, and the Indian Navy was abolished. On November 1, 1858, the Viceroy announced in Darbar at Allahabad that Queen Victoria had assumed the government of India and proclaimed a policy of justice and religious toleration. A principle already enunciated in the Charter Act of 1833 was reinforced and all, of every race or creed, were to be admitted as far as possible to those offices in the Queen's service for which they might be qualified. The aim of the Government was to let the benefit of all her subjects in India. In this prospect will be our strength, in this contentment our security, and in their gratitude our best reward. Peace was proclaimed in July, 1859, and in the cold weather Lord Canning went on tour in the northern provinces to receive the homage of loyal chiefs and to assure them that the policy of lapse was at an end. A number of other important reforms marked the closing years of Canning's Viceroyalty. The India Councils Act (1861) augmented the Governor-General's Council and the Council of Madras and Bombay by adding non-official members, European and Indian, for legislative purposes only. By another Act of the same year High Courts of Judicature were constituted. To deal with the increased debt of India, Sir James Wilson was sent from England to be Financial Member of Council, and to him are due the customs system, income tax, *Revenue* duty, and State paper currency. The cares of office had broken down the Viceroy's health. Lady Canning died in 1862 and this hastened his departure for England where he died in June of that year. His successor, Lord Elgin, lived only a few months after his arrival in India, and was succeeded by Sir John (afterwards Lord) Lawrence, the saviour of the Punjab.

Sir John Lawrence.

The chief task that fell to Sir John Lawrence was that of reorganizing the Indian military system, and of reconstructing the Indian army. The latter task was carried out on the principle that in the Bengal army the proportion of Europeans to Indians in the infantry and cavalry should be one to two, and in the Madras and Bombay armies one to three, the artillery was to be almost wholly European.

The re-organization was carried out in spite of financial difficulties and the saddling of Indian revenues with the cost of a war in Abyssinia with which India had no direct concern, but operations in Bhutan were all the drain made on the army in India while the re-organising process was being carried on. Two severe famines—in Orissa (1860) and Bundelkhand and Upper Hindustan (1868-9)—occurred while Sir John Lawrence was Viceroy and he laid down the principle for the first time in Indian history that the officers of the Government would be held personally responsible for taking every possible means to avert death by starvation. He also created the Irrigation Department under Col. (Sir Richard) Strachey. Two commercial crises of the time have to be noted. One seriously threatened the tea industry in Bengal. The other was the consequence of the wild gambling in shares of every description that took place in Bombay during the years of prosperity for the Indian cotton industry caused by the American Civil War. The *Share* Mania, however, did no permanent harm to the trade of Bombay, but was, on the other hand, largely responsible for the series of splendid buildings begun in that city during the Governorship of Sir Bartle Frere. Sir John Lawrence retired in 1869, having passed through every grade of the service from a Assistant Magistrate to the Viceroyalty. Lord Mayo, who succeeded him, created an Agricultural Department and introduced the system of Provincial Finance, thus fostering the impulse to local self-government. He also laid the foundation for the reform of the salt duty, thus by enabling his successors to abolish the inter-provincial customs lines. Unhappily his vast schemes for the development of the country by extending communications of every kind were not carried out to the full, for him, for he was murdered in the convict settlement of the Andaman Islands in 1872. Lord Northbrook (Viceroy 1870-4) had to exercise his abilities chiefly in the province of finance. A severe famine which threatened Lower Bengal in 1874 was successfully warded off by the organization of State relief and the importation of rice from Burma. The following year was notable for the deposition of the *Wahab* of Baroda for misgovernment, and for the tour through India of the Prince of Wales (the late King Edward VII). The visit of the Duke of Edinburgh to India when Lord Mayo was Viceroy had given great pleasure to those with whom he had come in touch and had established a kind of personal link between India and the Crown. The Prince of Wales's tour aroused unprecedented enthusiasm for and loyalty to the British Raj, and further encouraged the growth of the spirit when in a durbar of great magnificence held on January 1st 1877 on the famous Ridge at Delhi Queen Victoria was proclaimed Empress of India. The Viceroy of that time, Lord Lytton, had, however, to deal with a situation of unusual difficulty. Two successive years of drought produced in 1877-78, the worst famine India had known. The most strenuous exertions were made to mitigate its effects and eight acres of rupees were spent in importing grain, but the loss of life was estimated at 5½ millions. At this time also Afghan affairs once more became prominent.

Second Afghan War

The Amir Sher Ali, was found to be intriguing with Russia and that fact coupled with his repulse of a British mission led to the second Afghan War. The British forces advanced by three routes—the Khyber, the Kurram, and the Bolan—and gained all the important strategic points of Eastern Afghanistan. Sher Ali fled and a treaty was made with his son Yakub Khan which was promptly broken by the murder of Sir Louis Cavagnari, who had been sent as English envoy to Kabul. Further operations were thus necessary, and Sir F. (now Lord) Roberts advanced on the capital and defeated the Afghans at Charasiar. A rising of the tribes followed in spite of Sir D. Stewart's victory, at Ahmad Kohyl, and his advance from Kabul to Kandahar. A pretender, Sir Abdur Ayub Khan from Herat prevented the establishment of peace, defeated Gen. Burrows at Maiwand and his friend Kandahar. He was routed in turn by Sir F. Roberts who made a brilliant march from Kabul to Kandahar. After the British withdrawal fighting continued between Ayub Khan and Abdur Rahman, but the latter was left undisputed Amir of Afghanistan until his death in 1901.

In the meantime Lord Lytton had resigned (1860) and Lord Ripon was appointed a Viceroy by the new Liberal Government. Lord Ripon's administration is memorable for the freedom given to the Press by the repeal of the Vernacular Press Act for his scheme of local self-government which developed municipal institutions, and for the attempt to extend the jurisdiction of the criminal courts in the districts over European British subjects independently of the race or nationality of the presiding judge. This attempt which created a feeling among Europeans in India of great hostility to the Viceroy ended in a compromise in 1884. Other reforms were the reestablishment of the Department of Revenue and Agriculture, the appointment of an Education Commission with a view to the spread of popular instruction on a broader basis, and the abolition by the Finance Minister (Sir Evelyn Baring, now Lord Cromer) of a number of customs duties. Lord Dufferin, who succeeded Lord Ripon in 1884, had to give his attention more to external than internal affairs. One of his first acts was to hold a durbar at Rawalpindi for the reception of the Amir of Afghanistan which resulted in the strengthening of British relations with that ruler. In 1885 a third Burmese war became necessary owing to the truculent attitude of King Thibaw and his intrigues with foreign Powers. The expedition under General Prendergast occupied Mandalay without difficulty and King Thibaw was exiled to Rangoon, where he still lives on a liberal pension. His dominions of Upper Burma were annexed to British India on the first of January 1886.

The Russian Menace

Of greater importance at the time were the measures taken to meet a possible and as it then appeared a probable attack on India by Russia. These preparations, which cost over two millions sterling, were hurried on because of a collision which occurred between Russian and Afghan troops at Peshawar, during the delimitation of the Afghan frontier

towards Central Asia and which seemed likely to lead to a declaration of war by Great Britain. War was averted but the Peshawar incident had called attention to a menace that was to be felt for nearly a generation more. It had also served to elicit from the Princes of India an unanimous offer of troops and money in case of need. That offer bore fruit under the next Viceroy Lord Lansdowne when the present system of Imperial Service Troops was organised. Under Lord Lansdowne's rule also the defences of the North Western Frontier were strengthened on the advice of Sir Frederick (now Earl) Roberts who was then Commander-in-Chief in India. Another form of precautionary measure against the continued expansion of Russia was taken by raising the annual subsidy paid by the Indian Government to the Amir from eight to twelve lakhs.

On the North Eastern frontier then occurred (1891) in the small State of Manipur a revolution against the Raja that necessitated an inquiry on the spot by Mr. Quinton the Chief Commissioner of Assam. Mr. Quinton the commander of his escort and others, were treacherously murdered in a conference and the escort ignominiously retreated. This disgrace to British arms led to several attacks on frontier outposts which were brilliantly defeated. Manipur was occupied by British troops and the government of the State was reorganised and a Political Agent Lord Lansdowne's term of office was distinguished by several other events such as the passing of the Parliamentary Act (Lord Cross's Act, 1892), which increased the size of the Legislative Councils as well as the number of non-officials in them. Legislation aimed at social and domestic reform among the Hindus and the closing of the Indian Mints to the free coinage of silver (1893). In Burma great progress was made under Sir Alexander Mackenzie, a Chief Commissioner, comparative order was established and large schemes for the construction of railways, roads and irrigation works were put in hand. (The Province was made a Lieutenant Governorship in 1897).

Frontier Campaigns.

Lord Elgin who succeeded Lord Lansdowne in 1894 was confronted at the outset with a deficit of Rs. 24 crores due to the fall in exchange. (In 1895 the rupee fell as low as 3s. 1d.) To meet this the old five per cent import duties were reimposed on a number of commodities, but not on cotton goods and within the year the duty was extended to rice goods, but not to yarn. The reorganisation of the Army which involved the abolition of the old system of Presidency Armies, had hardly been carried out when a number of risings occurred along the North West Frontier. In 1895 the British Agent in Chitral—which had come under British influence two years previously when Sir H. M. Durand had demarcated the southern and eastern boundaries of Afghanistan—was besieged and had to be rescued by an expeditionary force. Two years later the Wazirs, Swatis, and Mohmands attacked the British positions in Malakand and the Afridis closed the Khyber Pass. Peace was only established after a prolonged campaign (the Tirah campaign) in which 40,000 troops were employed, and over 1,000 officers

and men had been lost. This was in itself a heavy burden on the finances of India which was increased by the serious and widespread famine of 1896-97 and by the appearance in India of bubonic plague. The methods taken to prevent the spread of that disease led in Bombay to rioting and elsewhere to the appearance in the vernacular press of seditious articles which made it necessary to make more stringent the law dealing with such writings.

Lord Curzon's Viceroyalty

With famine and plague Lord Curzon also who succeeded Lord Elgin in 1899 had to deal in 1901 the cycle of bad harvests came to an end but plague increased and in 1904 deaths from it were returned at over one million. Of the many problems to which Lord Curzon directed his attention only a few can be mentioned here—some indeed claim that his greatest work in India was not to be found in any one department but was in fact the general gearing up of the administration which he achieved by his unceasing energy and personal example of strenuous work. He had at once to turn his attention to the North West Frontier. The British garrisons beyond our boundary were gradually withdrawn and replaced by tribal levies and British forces were concentrated in British territory behind them as a support. An attempt was made to check the arms traffic and work on strategic railways was pushed forward. The fact that in seven years he only spent a quarter of a million upon repulsive measures and only found it necessary to institute one blockade (against the Mahsud Waziris) is the justification of this policy of compromise between the Lawrence and Forward schools of thought. In 1901 the trans-Indus districts of the Punjab were separated from that Province and together with the political charges of the Malakand the Khyber, Kurram, Tochi and Wana were formed into the new North West Frontier Province under a Chief Commissioner directly responsible to the Government of India. That year also witnessed the death of Abdur Rahman, the Amir of Afghanistan and the establishment of an understanding with his successor Habibullah. In 1904 the attitude of the Dalai Lama of Tibet being pro-Russian and anti-British it became necessary to send an expedition to Lhasa under Colonel (Sir Francis) Younghusband. The Dalai Lama abdicated and a treaty was concluded with his successor.

Lord Curzon as Viceroy

In his first year of office Lord Curzon passed the Act which in accordance with the recommendations of the Fowler Commission practically fixed the value of the rupee at 1s. 4d. and in 1900 a Gold Reserve fund was created. The educational reforms that marked this Viceroyalty are dealt with elsewhere chief among them was the Act of 1904 reorganising the governing bodies of Indian Universities. Under the head of agrarian reform must be mentioned the Punjab Land Alienation Act, designed to free the cultivators of the soil from the clutches of money-lenders, and the institution of Agricultural banks. The efficiency of the Army was increased (Lord Kitchener was Commander-in-Chief) by the re-arming of the Indian Army, the strengthening of the

artillery and the reorganisation of the transport service. In his relations with the Feudatory Chiefs, Lord Curzon emphasised their position as partners in administration, and he founded the Imperial Cadet Corps to give a military education to the sons of ruling and aristocratic families. In 1902 the British Government obtained from the Nizam a perpetual lease of the Assigned Districts of Berar in return for an annual payment of 25 lakhs. The accession of King Edward VII was proclaimed in a splendid Durbar on January 1, 1903. In 1904 Lord Curzon returned to England for a few months but was re-appointed to a second term of office. Lord Amptill, Governor of Madras having acted as Viceroy during his absence. The chief fact of this second term was the partition of Bengal and the creation of a new Province of Eastern Bengal and Assam—a reform designed to remove the systematic neglect of the trans-Ganges areas of Bengal which evoked bitter and prolonged criticism. In 1905 Lord Curzon resigned, being unable to accept the proposals of Lord Kitchener for the re-adjustment of relations between the Army headquarters and the Military Department of the Government and being unable to obtain the support of the Home Government. He was succeeded by Lord Minto the grandson of a former Governor-General. It was a sorry heritage to which Lord Minto succeeded for the unrest which had long been noticed developed in one direction into open rebellion. The occasion of the outbreak in Bengal was the partition of that province. The causes of the flood of seditious writings and speeches of the many attempts at assassination and of the boycott of British goods are less easily definable. The mainspring of the unrest was a deep-rooted antagonism to all the principles upon which Western society especially in a democratic country like England, has been built up.

Political Outrages

Outside Bengal attempts to quell the disaffection by the ordinary law were fairly successful. But scarcely any province was free from disorder of some kind and, though recourse was had to the deportation of persons without reason assigned under an Act of 1818 special Acts had to be passed to meet the situation etc.—an Explosives Act, a Prevention of Seditious Meetings Act, and a Criminal Law Amendment Act which provides for a magisterial inquiry in private and a trial before three judges of the High Court without a jury. The need for this reinforcement of the law may be shown by a list of the principal political outrages in India while Lord Minto was Viceroy and subsequent to his departure—

December 1907—Attempt to wreck the Lieutenant-Governor of Bengal's train at Varanasi.

December 1907—Attempt on the life of Mr. B. C. Allen at Goalundo.

March 1908—Second attempt to wreck Sir Andrew Fraser's train at Chandernagore.

March 1908—Attempt to shoot Mr. Higgins botham, a missionary at Kusabha.

April 11th, 1908—Bomb thrown at the Mayor of Chandernagore.

April 30th 1908—Murder of Mrs and Miss Kennedy at Moradpur.

August 1908—Mr. Camak Mill manager severely injured by a bomb on the E E S Railway.

August 1908—Murder of Narendra Nath Goswami, the approver in the Allpore case in Allpore Jail.

November 6th 1908—Attempt on the life of Sir Andrew Fraser at Overtoun Hall.

November 9th 1908—Murder of Inspector Aundo Lal Barje who arrested Khudiram Bose in Serpentine Lane Calcutta.

November 1908—Sukumar alleged informer murdered at Dacca.

February 19th 1908—Murder of Babu Ashutosh Biswas in the Courtyard at Allpore.

June 1909—Pris Mohun Chatterji (brother of an approver) stabbed to death at Fat Jhangpur.

July 1st 1909—Assassination of Lieutenant Colonel Sir William Curzon Wyllie at the Imperial Institute London.

November 13th 1909—Bomb exploded near H E Lord Minto's carriage at Ahmedabad.

December 21st 1909—Assassination of Mr A M T Jackson I.C.S. Collector of Nask.

January 24th 1910—Murder of Khan Bahadur Shams ul Alam.

February 21st 1911—Murder of Head Constable Srish Chakravarty.

March 2nd 1911—Attempt to murder Mr Cowie P.W.D. with a bomb in Calcutta.

April 19th 1911—Babu Manmohan Day witness in Munshiganj Loh case shot dead at Routhbong.

June 17th 1911—Murder of Mr Ashu Col lecturer of Tinahilly.

June 18th 1911—Murder of Sub Inspector Raj Kumar Roy at Myrmensingh.

July 1911—Sonarang case Rashun Dewan Duffadar Amarul Dewan and Kati Benode Chakravarty shot at Netrajati.

September 21st 1912—Head Constable Radhul Roy shot dead at Dacca.

December 13th 1912—Attempt to assassinate Abdul Rahman one of the witnesses for the police in the Midnapore conspiracy case.

December 23rd 1912—H E Lord Hardinge wounded and one of his servants killed by a bomb during the State entry into Delhi.

March 2th 1913—Attempt to murder Mr Gordon the sub-divisional officer with a bomb at Molvi Bazaar Sylhet.

May 17th 1913—Chappasi in the employ of the Lahore Gymkhana Club killed by a bomb near the Lawrence Gardens Lahore.

September 29th 1913—Murder of Head Constable Haripada Deb College Square, Calcutta.

September 30th, 1913—Bankim Chandra Chowdhury Inspector of Police at Myrmensingh, formerly of Dacca, killed by a bomb.

January 19th 1914—Nripendra Nath Ghose Inspector of the Calcutta C.I.D. shot dead on the Chitpur Road Calcutta. A Tell boy, named Ananda, was also shot dead.

November 27th 1914—Seven persons committed to Herpersore Gaol for shooting dead

Sub Inspector Bhabrat Ali and Zemindar Jowla Singh.

February 28th, 1915—Police Inspector Suresh Chandra Mukerji who had been engaged in connection with taxi cab despatch in Calcutta shot dead while on duty by four men with revolvers. His orderly was wounded. The assassin escaped.

August 12th 1915—Commissioner of Danjhatti shot dead. A police constable seriously injured by several revolver shots fired from a Motor Car in an outrage near Calcutta.

October 9th 1915—Jatindra Mohun Ghose Deputy Superintendent of Police and his son shot dead at Myrmensingh.

October 22nd 1915—Sub-Inspector Girindra Nath Barje killed and another officer wounded in an attempt on the lives of four C.I.D. officers in Calcutta.

The list it will be seen, includes two attempts on the life of the Viceroy himself. It does not include a number of equally significant disturbances such as the riots in Bombay (June 1908) during the trial of Titak which led to considerable loss of life. Concurrently with these repressive measures steps were taken to extend representative institutions. In 1907 a Hindu and a Mahomedan were appointed to the Secretary of State's Council, and in 1909 a Hindu was appointed for the first time to the Viceroy's Council. The Indian Councils Act of 1909 carried this policy further by reconstituting the legislative councils and conferring upon them wider powers of discussion. The executive councils of Madras and Bombay were enlarged by the addition of an Indian member.

Lord Minto

As regards foreign policy, Lord Minto's Vicerealty was distinguished by the conclusion (1907) between Great Britain and Russia of an agreement on questions likely to disturb the friendly relations of the two countries in Asia generally, and in Persia Afghanistan and Tibet in particular. Two expeditions had to be sent taken on the North West frontier against the Zakka Khels and the Mohmands and ships of the East India Squadron were frequently engaged off Maskat and in the Persian Gulf in operations designed to check the traffic in arms through Persia and Mikan to the frontier of India. Towards Native States Lord Minto adopted a policy of less interference than that followed by his predecessors. He invited their views on sedition, and in a speech at Ladpur disclaimed any desire to force a uniform system of administration in Native States, and said he preferred their development with due regard to treaties and local conditions. Lord Minto left India in November 1910 a few weeks after Lord Morley had resigned the Secretaryship of State, the tenors of their respective posts having been practically identical in point of time. The position of the Viceroy had in those years materially changed. Lord Minto had a weak Council and this weakness was reflected in the government of Bengal and Madras, but it is more important to note that Lord Morley had extended the policy of transferring the actual government of India from India to London, to such an extent that the Under-

Secretary for India was able to describe the Viceroy as merely the agent of the Secretary of State.

Visit of the King and Queen.

Sir Charles (Lord) Hardinge was appointed to succeed Lord Minto. His first year in India was marked by a weak monsoon and famine in parts of Western India still more by the visit to India of the King Emperor and the Queen who arrived at Bombay on December 2, 1911. From there they proceeded to Delhi where in the most magnificent durbar ever held in India the coronation was proclaimed and various boons, including an annual grant of 50 lakhs for popular education, were announced. At the same ceremony His Majesty announced the transfer of the capital of India from Calcutta to Delhi, the reunion of the two Bengals under a Governor-in-Council, the formation of a new Lieutenant-Governorship for Behar, Chota Nagpur and Orissa, and the restoration of Assam to the charge of a Chief Commissioner. On December 14 a review of 60,000 British and Indian troops was held and on the 15th Their Majesties each laid a foundation stone of the new capital. From Delhi the King went to Nepal, and the Queen to Agra and Rajputana afterwards meeting at Benares and going to Calcutta. Thence they returned to Bombay and sailed for England on January 10. From all sources, public and private," wrote His Majesty to the Premier "I gather that my highest hopes have been realised. Our satisfaction will be still greater if time proves that our visit has conduced to the lasting good of India and of the Empire at large."

In March, 1912 a committee of experts was appointed to advise the Government of India as to the site of the new capital. Temporary buildings were erected to accommodate the Government, and on December 23 the State entry into Delhi was made by the Viceroy. This ceremony was marred by an attempt on His Excellency's life as he passed down the Chandni Chauk. The bomb thrown from a house killed an attendant behind the Howdah in which the Viceroy was sitting, seriously wounded Lord Hardinge, but left Lady Hardinge unscathed. The courage displayed by their Excellencies was unsurpassed and elicited the admiration of all, but in spite of the offer of large rewards the assassin was not caught.

Educational schemes claimed a large place in public attention during 1912 and 1913. In the former year a Royal Commission under the presidency of Lord Ishington was appointed to inquire into the public services of India. In 1912 also a Committee of four was appointed, under the Chairmanship of Field Marshal Lord Minto, to inquire into military policy and expenditure in India. In the following year a Royal Commission was appointed under the Chairmanship of Mr. Austen Chamberlain, to investigate and report on certain administrative questions relating to Indian finance and currency which had for some years been much discussed particularly in India.

In the North-East of India an expedition under Gen. Dwyer, was despatched against the Abors for the punishment of the murderers of Mr. Noel Williamson.

In August, 1913 the demolition of a lavatory attached to a mosque in Cawnpore was made the occasion of an agitation among Indian Mahomedans and a riot in Cawnpore led to heavy loss of life. Of those present at the riot 106 were put on trial but subsequently released by the Viceroy before the case reached the Sessions, and His Excellency was able to settle the mosque difficulty by a compromise that was acceptable to the local and other Mahomedans.

In October 1913 it was announced that General Sir Beauchamp Duff had been appointed to succeed Sir O. Moore Creagh as Commander-in-Chief. This was a departure from the long tradition of alternately choosing the Commander-in-Chief from the British and the Indian Army. There were special reasons for the nomination of Sir Beauchamp Duff who as Adjutant-General in India, and Chief of Staff during Lord Kitchener's term gave proof of his thorough knowledge of Indian conditions and his exceptional powers as a military administrator. The Military changes in India in 1906 and 1909 had profoundly modified the duties of the Commander-in-Chief and had conferred on him alone duties formerly divided between the Commander-in-Chief and the Military Member of Council and had made him the administrative head of the Army.

In the latter part of 1913 considerable feeling was aroused in India by the circulation of stories—many of them shown to be unfounded—about the ill treatment of Indians in South Africa. Rioting by Indians in Natal was followed by the appointment by the Union Government of a Committee of Inquiry at which the Government of India was represented by Sir Benjamin Robertson. The Commission's report afforded the basis of a settlement commonly regarded as equitable. In the autumn of 1914 the Viceroy, at a Council meeting, outlined a reciprocal scheme for controlling emigration to India and in the Colonies as an alternative to the principle of free migration between all parts of the Empire for which the Government of India had long contended.

In July the death of Lady Hardinge, wife of the Viceroy took place in London after an operation. The courage she had displayed at Delhi when the Viceroy was wounded by a bomb and the sympathetic and active interest she had displayed in the women and children of India had endeared her to all classes. Her death was widely mourned and her memory is to be perpetuated by a memorial originated by the Aga Khan.

Effects of the War

The various effects of the European war upon India are fully discussed elsewhere. But it must here be set on record that the declaration of war was followed in India by an unprecedented declaration of loyalty on all sides, and the numerous offers of help or personal service made by the Chiefs and peoples around in England a feeling of intense gratitude. A military force numbering some 250,000, was sent from India to Europe and East Africa, within a short time of the outbreak of hostilities. The announcement of that fact was made on the same day that a message from the King Emperor was published. In it His Imperial Majesty said—Amongst the many incidents that have marked the

unanimous uprising of the populations of my Empire in defence of its unity and integrity nothing has moved me more than the passionate devotion to my Throne expressed both by my Indian and English subjects and by the Feudatory Princes and Ruling Chiefs of India and their prodigious offers of their lives and their resources in the cause of the realm. Their one-voiced demand to be foremost in the conflict has touched my heart and has inspired to the highest laud the love and devotion which, as I well know have ever linked my Indian subjects and myself. India was not included in the actual theatre of hostilities, except when Madras was subjected to a slight bombardment by the German cruiser *Emden* but shipping in the Bay of Bengal and in the Arabian Sea was on several occasions interfered with and several vessels were sunk by enemy ships.

In spite of the war the year 1915 was one of comparative peace and order in India. A continuous effort was maintained in all parts of India to keep the troops at the front and the wounded on their return well supplied with comforts and the Princes and people of India contributed handsomely to the various war and relief funds. The monsoon was of a favourable character and though at one time famine appeared to be inevitable in Gujarat and Kathiawar late rains saved the situation.

The various measures taken in connexion with the war are related elsewhere in this volume. Here mention need be made only of a Bill passed in the Imperial Legislative Council which gave power to the Governor-General in Council to issue Regulations to insure the safety of the country and was modelled generally on the English Defence of the Realm Act. It also permitted the creation of a special tribunal of three Commissioners of whom two must have qualifications of a sessions or an additional sessions judge to hear cases made over to them by order of the local Government concerning breaches of regulations under the Act for any offence punishable with death transportation or imprisonment for a term of seven years. In connexion with the war also the Viceroy—whose term of office was extended by six months—made a journey up the Persian Gulf visiting the oil works at Abadan and Basra, Shaiba and Kurna. On his return he visited Mascat where there had been fighting in January.

There were several fights on the North West frontier during the year but the tribesmen never succeeded in penetrating far into British territory. In Bengal, as will be seen from the list of anarchical crimes quoted above there were a number of signs that the spirit of lawlessness had by no means been stamped out. More serious however to the welfare of the country as a whole was the return in September 1914 (see Indian Year Book 1914) of a number of Sikh emigrants from British Columbia. The riot at Badli Budge on that occasion gave a foretaste of the revolutionary plans entertained by many of these men. The sequel was seen in the Lahore Conspiracy case in which a Special Commission sentenced 24 persons to death, 27 to transportation for life and six to terms of imprisonment. The judgment showed that a plot had been prepared with the object of overthrowing the Government and the evidence in the case supported the idea that Germans had aided the conspirators and that at least after the war broke out the conspirators regarded themselves as lagged with the enemies of Great Britain. Of the death sentences 18 were subsequently commuted to transportation for life. The appeals in the 1914 Con piracy case (see Indian Year Book 1914 p 650) were heard in the early part of the year—four by the Privy Council—and the arrests confirmed.

In the early part of the year the House of Lords adopted a resolution advising the King to withhold the Royal assent during the continuance of the war from the draft proclamation creating an Executive Council for the United Provinces. This elicited widespread comment in India the Viceroy being the most important of those who condemned the House of Lords for their act. Another important political event during the year was the acceptance by the Viceroy of a resolution of the Imperial Legislative Council asking that India should be officially represented at the next Imperial Conference.

The death of Mr. Gokhale on February 10 deprived India of one of her leading men whose place in Indian public life to quote Lord Basingstoke it will be almost impossible to fill. Another eminent man who died during the year was Sir Pherozeshah Mehta who had devoted much of his long life to the service of Bombay.

The Government of India.

The impulse which drove the British to India was not conquest but trade. The Government of India represents the slow evolution from conditions established to meet trading requirements. On September 24, 1599 a few years before the death of Queen Elizabeth and Akbar the merchants of London formed an association for the purpose of establishing direct trade with the East and were granted a charter of incorporation. The Government of this Company in England was vested in a Governor with a General Court of Proprietors and a Court of Directors. The factories and affairs of the Company on the East and West Coast of India and in Bengal were administered at each of the principal settlements of Madras (Fort St. George), Bombay and Calcutta (Fort William) by a President or Governor and a Council consisting of the senior servants of the Company. The three "Presidencies" were independent of each other and subordinate only to the Directors in England.

Territorial Responsibility Assumed.

The collapse of the Government in India consequent on the decay of Moghul power and the intrigues of the French on the East Coast forced the officers of the Company to assume territorial responsibility in spite of their own desires and the insistent orders of the Directors. Step by step the Company became first the dominant then the paramount power in India. In these changed circumstances the system of government by mutually independent and unwieldy councils of the merchants at the Presidency towns gave rise to grave abuses. Parliament intervened and under the Regulating Act of 1773 a Governor General and four councillors were appointed to administer the Presidency of Fort William (Bengal) and the supremacy of that Presidency over Madras and Bombay was for the first time established. The subordinate Presidencies were forbidden to wage war or make treaties without the previous consent of the Governor-General of Bengal in Council except in cases of imminent necessity. Pitt's Act of 1784 which established the Board of Control in England vested the administration of each of the three Presidencies in a Governor and three councillors including the Commander-in-Chief of the Presidency Army. The control of the Governor-General-in-Council was somewhat extended as it was again by the Charter Act of 1793. Under the Charter Act of 1833 the Company was compelled to close its commercial business and it became a political and administrative body holding its territories in trust for the Crown. The same Act vested the direction of the entire civil and military administration and sole power of legislation in the Governor-General-in-Council and defined more clearly the nature and extent of the control to be exercised over the subordinate governments. After the Mutiny there was passed in 1858 an Act transferring the Government of India from the Company to the Crown. This Act made no important change in the administration in India, but the Governor-General, as representing the Crown, became known as the Viceroy. The Governor-General is the sole representative of the Crown in India. He is assisted by a Council, composed of high officials, each of whom is responsible for a special department of the administration.

Functions of Government.

The functions of the Government of India are perhaps the most extensive of any great administration in the world. It claims a share in the produce of the land and in the Punjab and Bombay it has restricted the alienation of land from agriculturists to non-agriculturists. It undertakes the management of landed estates where the proprietor is disqualified. In times of famine it undertakes relief works and other remedial measures on a great scale. It manages a vast forest property and is the principal manufacturer of salt and opium. It owns the bulk of the railways of the country and directly manages a considerable portion of them. It has constructed and maintains most of the important irrigation works. It owns and manages the post and telegraph systems. It has the monopoly of the Note issue and it alone can set the mints in motion. It lends money to municipalities, rural boards, and agriculturists and occasionally to owners of historic estates. It controls the sale of liquor and intoxicating drugs and has direct responsibilities in respect to police, education, medical and sanitary operations and ordinary public works of the most intimate character. The Government has also close relations with the Native States which collectively cover more than one third of the whole area of India and comprise more than one fifth of its population. The distribution of these great functions between the Government of India and the provincial administrations fluctuates broadly speaking it may be said that the tendency of the day is to confer the Government of India to control and the Local Governments to administer.

Division of Responsibility

The Government of India retains in its own hands all matters relating to foreign relations, defence, general taxation, currency, debt, tariffs, sports, telegraphs and railways. The ordinary internal administration—the assessment and collection of revenue, education, medical and sanitary arrangements and irrigation, buildings and roads fall within the purview of the Local Governments. In all these matters the Government of India exercises a general and constant control. It prescribes lines of general policy and tests their application from the annual administration reports of the Local Authorities. It directly administers certain Imperial departments such as Railways, Post Office, Telegraphs, the Survey of India and Geology. It employs a number of inspecting officers for those departments primarily left to Local Governments including Agriculture, Irrigation, Forests, Medical and Archaeology. It receives and when necessary modifies the annual budgets of Local Governments, and a very new appointment of importance, and every large addition even to minor establishments has to receive its specific sanction. There also exists a wide field of appeal to the Government of India from officials or private individuals who may feel themselves aggrieved by the action of Local Governments and outside the Presidencies of Madras, Bombay and Bengal the approval of the Governor-General is necessary to the appointment of some of the most important officers of the provincial administration.

The supervision of the principal Native States rests directly with the Governor-General in Council, but Local Governments have also responsibilities in this direction where important States have historical association with them, and in the case of minor States.

Personnel of the Government

The Governor-General and the ordinary members of his Council are appointed by the Crown. No limit of time is specified for their tenure of office but custom has fixed it at five years. There are six ordinary members of Council three of whom must at the time of their appointment have been at least ten years in the service of the Crown in India, one of the three remaining members must be a Barrister the qualifications of the fifth and sixth are not prescribed by statute. The Indian civilians hold respectively the portfolios of Land Revenue and Agriculture, the Home, the Finance and the Education Departments. The Law Member has charge of the Legislative Department and a member with English official experience has charge of the Commerce and Industry Department. The Viceroy acts as his own member in charge of Foreign affairs. Railways are administered by a Board of three members whose chairman has the status of a Secretary and are under the general control of the Commerce and Industry Department. The Command-in-Chief may also be and in practice always is an extraordinary member of the Council. He holds charge of the Army Department. The Governors of Madras, Bombay and Bengal become extraordinary members if the Council meets within their Provinces. The Council may assemble at any place in India which the Governor-General appoints in practice it meets only in Delhi and Simla.

Business Procedure

In regard to his own Department each Member of Council is largely in the position of

a Minister of State and has the final voice in ordinary departmental matters. But any question of special importance, and any matter in which it is proposed to overrule the views of a Local Government must ordinarily be referred to the Viceroy. Any matter originating in one department which also affects another must be referred to the latter and in the event of the Departments not being able to agree the case is referred to the Viceroy. The Members of Council meet periodically as a Cabinet—ordinarily once a week—to discuss questions which the Viceroy desires to put before them, or which a member who has been overruled by the Viceroy has asked to be referred to Council. If there is a difference of opinion in the Council the decision of the majority ordinarily prevails, but the Viceroy can overrule a majority if he considers that the matter is of such grave importance as to justify such a step. Each departmental officer is in the subordinate charge of a Secretary whose position corresponds very much to that of a permanent Under-Secretary of State in the United Kingdom, but with these differences—that the Secretary is present at Council meetings, that he attends on the Viceroy usually once a week and discusses with him all matters of importance arising in his Department, that he has the right of bringing to the Viceroy's special notice any case in which he considers that the Viceroy's concurrence should be obtained to action proposed by the Departmental Member of Council, and that his tenure of office is usually limited to three years. The Secretaries have under them Deputy Under and Assistant Secretaries together with the ordinary clerical establishment. The Secretaries and Under-Secretaries are usually members of the Indian Civil Service. The Government of India has no Civil Service of its own as distinct from that of the Provincial Governments and officers serving under the Government of India are borrowed from the Provinces.

Government of India

VICEROY AND GOVERNOR GENERAL OF INDIA

His Excellency the Right Hon. BARON HARDINGE OF PENRHURST, G.C.B. G.M.S.I., G.C.M.G.,
G.M.I.E. G.C.V.O. I.S.O. assumed charge of office 23rd November 1910

PERSONAL STAFF OF THE GOVERNOR-GENERAL.

Private Secretary Sir J. H. Du Boulay K.C.I.R.

Military Secretary Lieut.-Col. F. A. Maxwell
V.O. C.B.I. D.S.O. 18th Lancers.

Comptroller of the Household Major J. Macken
Lieut. C.I.R., 35th Sikhs.

Asst. Private Secretary H. A. F. Metcalfe I.O.S.

Adviser de-Camp Captain W. A. Brown 4th But
Wilt Regt, Captain VI count R. F. Errington
Grenadier Guards Capt. J. O. C. Hasted,
Durham Light Infantry, Capt. The Hon.
A. H. L. Harding, Mubaid din Khan
Risaldar Major Sardar Bahadur 31st Lan-
cers Karam Singh, Risaldar Major 13th
Duke of Connaught's Lancers.

Honorary Adviser de-Camp Lumden Capt. W.
R. N. C.V.O. Maydon Hon. Col. H. J. C.I.E.
V.O., Nagpur Volunteer Rifles. Cuffe Hon.
Lt.-Col. O.F.L.W., V.O. Upper Burma Vol.
Rifles Agabeg, Hon. Col. F. J. Chota Nagpur
Light Horse Grice Hon. Col. W. T. V.D.
1st Battalion Calcutta Vol. Rifles Knowles
Hon. Col. J. G. C.I.E., V.D. Surma V.L. Horse
Warburton, Hon. Col. H. G. Luck. V. Rifles
Pugh Hon. Col. A. J. V.L. Calcutta Light
Horse Reed Hon. Lt. Col. H. Stanley

Bombay Light Horse Henry, Hon. Col. W.
J. C.I.E. Simla Vol. Rifles Muhammad Ali
Beg Hon. Lt. Col. Sir Nawab Bahadur
K.C.I.E. M.V.O. Commanding H. H. the
Nizam's Forces Zorawar Singh Capt.
Commandant Bhawanagar Imperial Service
Lancers Maharaj Singh Commandant,
2nd Sardar Risala, Jodhpur Imperial
Service Troops.

Wait Muhammad, Risaldar Major (Hon. Capt.)
Sardar Bahadur late Governor General's
Body Guard, Abdul Aziz Risaldar Maj.
(Hon. Capt.) Sardar Bahadur late 5th Cav.
Madho Singh Rana, Subadar Major (Hon.
Capt.) Sardar Bahadur late 4th B. Abdul
Karim Khan Risaldar Major (Hon. Capt.)
Sardar Bahadur late Governor General's
Body Guard Mit Singh Subadar Major
Sardar Bahadur late 5th Sikhs.

Indian Adviser de-Camp Mahjuddin Khan
Risaldar Major Sardar Bahadur 31st
Lancers Karam Singh Risaldar Major
13th Lancers.

Surgeon Lieut.-Col. Sir J. R. Roberts, C.I.E.
Commandant of Body Guard Capt. W. A. G.
de Gale 5th Cavalry.

Ordinary Members—

COUNCIL

Sir W. H. Clark K.C.S.I. Took his seat, 24th November 1910
Sir R. H. Craik K.C.S.I. Took his seat, 27th January 1912.
Sir William Meyer K.C.S.I. Took his seat, 30th June 1913
Sir C. H. A. Hill C.S.I. Took his seat, 5th July 1915
Sir Sankaran Nair
Mr J. R. Lowndes Appointed 1915. (Law)

Extraordinary Member—

H. E. Gen. Sir B. Duff G.C.B. K.C.S.I. K.C.V.O. ADC Commander in Chief in India
Took his seat 8th March 1914

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Under Secretary F. Noyce
Inspector-General of Forests G. S. Hart
Assistant Inspector-General of Forests R. S.
Troup
Registrar J. D. Shapcott
Superintendents W. A. Threlfall, C. H. Martin
H. H. Lincoln T. McDonnell

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I.C.S.

Deputy Secretary C. W. E. Cotton I.C.S.

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A. K. Pandit, Shah Muhammad.

Comptroller and Assistant-General R. A. Gamble

Controller of Currency, H. F. Howard.

Military Finance Branch

Financial Adviser Hon. Mr G. B. H. Fell
C.I.E. I.C.B.

*Military Accountant-General and ex-officio De-
puty Financial Adviser* Col. B. W. Marlow
C.I.E. I.A.

Deputy Financial Adviser W. C. Ashmore

Additional Deputy Financial Adviser Major E.
B. Peacock I.A.

Assistant Financial Adviser R. H. Rolfe

Assistant Controller G. H. Cookhen

Registrar W. O. Gleeson.

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Hodges G. W. Turner A. W. Schönewald

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Foreign Secretary Hon. Mr A. H. Grant.

Deputy Secretaries, J. L. Maffey I.C.S., Major
B. H. Chennoy Travda.

Under Secretary Captain H. V. Blacoe.
Assistant Secretary H. D. Graves Law
Attache, Khan Bahadur Maiba Baksh
Registrar G. W. Marshall I.S.O.
Offg. Inspector General Imperial Service Troops
Lt. Col. J. L. Ros
Superintendents A. Stapleton I.S.O., S. A. Blaker
E. L. Nils, P. G. B. Waugh, D. A. Clarke C
W. Kirkpatrick, E. B. Higgs C O., H.
Telling F. B. Buckner J. W. S. Ingles.

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Deputy Secretary S. R. Higgins I.C.S.
Under Secretary W. Booth Gravelly
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Raj Sahib A. C. Kour H. C. Maraden P. K.
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Senior Assistant Secretary Kunwar Mahara
Singh

Junior Assistant Secretary G. Anderson M.A.
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Bart, L. D. Harrington
Registrar R. H. Blaker

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Attache, H. Monckie Smith I.C.S.
Legal Asst. S. G. Gupta.
Registrar T. W. Payne, I.S.O.
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C. B. C.B. C.B. D.S.O.
Deputy Secretary Colonel B. Holloway
Asst. Secretaries Major A. H. O. Spencer
Major R. B. Graham Major A. W. Chitty and
A. Whelan
Registrar Mr. R. Tharle Hughes
Superintendents W. C. Debenham, A. B.
Kunming, P. P. Hypher, Raj Sahib S. C.
Bliss and J. E. G. Kirk.

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Deputy Secretary P. Hawkins M.I.C.E.
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Assistant Secretary J. E. Lacey I.S.O.
Registrar W. J. Drake I.S.O.
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R. R. Beake H. M. Marchant
Insp. Genl. of Mr. Netherdale C.B.
Cons. Asst. J. Long F.R.I.A.
Asst. Archt. T. Oliphant Footers F.R.I.A.
Asst. Asst. J. W. Meares F.R.A.S. M.I.C.E.

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Under Secretary H. A. F. Lindsay S. H. Latour
Controller of Patents and Designs—H. G.
Graves.
Attache L. D. Elliott, I.C.S.
Registrar T. O. Drake, I.S.O.
Offg. Registrar E. P. Jones.
Superintendents A. K. Sarkar, B. B. Banerji, S.
N. Banerji, O. H. Haldry Patch Din (offg.)

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C.B. C.B. Members, A. B. Anderson, F. D. Con-
chann M.I.C.E.
Secretary, T. Ryan.
Chief Engineer, Sir Robert Gates, Kt.

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Director-General of Posts & Telegraphs, Hon. Mr.
W. Maxwell, C.B. M.V.O.

NORTHERN INDIA SALT REVENUE

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INDO-EUROPEAN TELEGRAPH DEPARTMENT
Persian Gulf and Persian Sections
Directors E. E. Gunter H. W. Smith, C.B.
W. King Wood, C.B. (offg.) Commander
of Cable Steamer Patrick Stewart, F. W.
Townsend

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Surveyor-General of India Col. Sir S. G.
Burrard K.C.B. I.C.S.

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Superintendents, C. S. Middlemiss B.A. F.G.S.
E. Vrodenburg B.Sc. F.G.S., L. L. Ferriar
D.S.C. F.G.S.
Chemist, W. A. K. Christie B.Sc. Ph.D.

BOTANICAL SURVEY

Director Major A. G. Gage M.B. I.M.S. Eco-
nomic Botanist, H. G. Carter M.B. I.M.S. Economic
Botanist, Madras F. R. Parnell Economic
Botanist, Bombay W. Barnes, B.Sc. Economic
Botanist United Provinces H. M. Leake,
M.A. F.L.S.

ARCHAEOLOGICAL SURVEY

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M.A. C.B. Superintendents Eastern Circle
D. R. Bhandarkar M.A. Superintendents,
Southern Circle A. H. Loughart, Superinten-
dent Eastern Circle D. B. Spooner Ph.D.
Superintendents Northern Circle G. Sander-
son H. Hargreaves Superintendents Burma
C. Duroiselle Superintendents, Frontier Circle
Sir M. A. Stein K.C.I.E., Ph.D. D.Litt. D.S.C.

MISCELLANEOUS APPOINTMENTS

Director General, Indian Medical Service Surg.
Gen. Sir C. P. Lukis K.C.B. M.D. F.R.C.S.
K.B.S. I.M.S.

Sanitary Commissioner with the Government
of India Lt. Col. W. W. Clemensha

Deputy Director General Indian Medical Ser-
vice Bt. Col. B. G. Seton, F.R.S. I.M.S.

Asst. D. G. I. W.S., Lt. Col. Jay Gould M.B. I.M.S.

Asst. Director General Indian Medical Service
(Sany) Major F. W. White M.L. I.M.S.

Director Central Research Institute Kasauli,
Major W. F. Harvey M.A. M.B., D.P.H., I.M.S.

Assistant to Director Central Research Institute
Kasauli Major F. R. Christophers, M.B., I.M.S.

Major F. L. W. Grig C.B. M.D.

Director, Pasteur Institute of India, Kasauli
Major A. O. McKendrick

Asst. Director Pasteur Institute of India,
Kasauli Capt. H. W. Acton I.M.S.

Superintendent X-ray Institute Dehra Dun,
Major A. B. Walter I.M.S.

Director King Institute of Preventive Medicine,
F. M. Gibson M.B. B.Sc.

Asst. Director King Institute of Preventive
Medicine Captain W. S. Patton M.B. I.M.S.

Director-General of Indian Observatories G. T.
Walker C.B. M.A., D.Sc. F.R.S.

Imperial Meteorologists, G. C. Simpson, D.Sc.
C. W. B. Normand Hon. Raj

Director Kodakamal and Madras Observatories,
J. Evershed.

Director Bombay and Allahabad Observatories,
Bombay, N. A. F. Moon.

Director, Aerological Observatory, Agra, J. H.
Field, M.A.

Secretary Board of Examiners Capt. C L
Poart, I.A.
Officer in Charge of the Records of the Govern-
ment of India A F Schofield M.A. (offg.)
Librarian Imperial Library Calcutta J A
Chapman
Agricultural Adviser and Director of the Agri-
cultural Research Institute I.A. B Co
ventry C.I.E.
Superintendent of Natural History Section of
Indian Museum N Annandale B.A. D.Sc.
Curator Industrial Section of Indian Museum
D Hooper F.C.S. F.L.S.
Chief Inspector of Mines C F Adams
Controller of Printing Stationery and Stamps
M J Cogswell
Superintendent of Government Printing J J
Melkie
Chief Inspector of Envelopes Lieut. Col. C A
Muspratt Williams P.A.
Administrator General of Bengal H T Hyde
Director Criminal Intelligence Sir C B Cleve-
land, K.C.I.E.
Director-General of Commercial Intelligence
A H Ley
Director of Statistics G F Shirras
Customs and Excise Chemist R L Jenks
GOVERNOR GENERAL OF INDIA
WILLIAM IN BENGALE

Name	Assumed charge of office
Warren Hastings	1774
Sir John Macpherson Bart	1776
Earl Cornwallis K.G. (a)	1792
Sir John Shore Bart (b)	1793
Lieut-General the Hon Sir Alured Clarke K.B. (offg.)	1794
The Earl of Mornington P.C. (c)	1794
The Marquis Cornwallis K.G. (2nd time)	1803
Sir George H. Bland Bart	1803
Lord Minto P.C. (d)	1807
The Earl of Moira K.G. P.C. (e)	1813
John Adam (offg.)	1823
Lord Amherst P.C. (f)	1823
William Bitterworth Bayley (offg.)	1828
Lord William Cavendish Bentinck G.C.B., G.C.H. P.C.	1828
(a) Created Marquis Cornwallis 15 Aug. 1792	
(b) Afterwards (by creation) Baron Teign- mouth	
(c) Created Marquess Wellesley 2 Dec. 1799	
(d) Created Earl of Minto 24 Feb. 1813	
(e) Created Marquess of Hastings 2 Dec. 1816	
(f) Created Earl Amherst 2 Dec. 1826	
GOVERNORS GENERAL OF INDIA	
Name	Assumed charge of office
Lord William Cavendish Bentinck, G.C.B. G.C.H. P.C.	1824
Sir Charles Metcalfe Bart (a) (offg.)	1835
Lord Auckland G.C.B. P.C. (b)	1836
Lord Ellenborough P.C. (c)	1842
William Wilberforce Bird (offg.)	1844
The Right Hon. Sir Henry Hardinge, G.C.B. (d)	1844
The Earl of Dalhousie P.C. (e)	1848
Viscount Canning, P.C. (f)	1856

(a) Afterwards (by creation) Baron Metcalfe
(b) Created Earl of Auckland, 31 Dec. 1836
(c) Afterwards (by creation) Earl of Ellen-
borough
(d) Created Viscount Hardinge, 2 May 1846
(e) Created Marquess of Dalhousie 25 Aug.
1849
(f) Afterwards (by creation) Earl Canning

NOTE—The Governor-General ceased to
be the direct Head of the Bengal Government
from the 1st May 1844 when the first Lieute-
nant-Governor assumed office. On 1st April,
1912 Bengal was placed under a separate
Governor and the appointment of Lieutenant
Governor was abolished.

VICEROYS AND GOVERNORS GENERAL OF INDIA

Name	Assumed charge of office
Viscount Canning P.C. (a)	1858
The Earl of Ligon and Kintardine K.T. G.B. P.C.	1862
Major-General Sir Robert Napier G.C.B. (b) (offg.)	1863
Colonel Sir William T. Denison G.C.B. (offg.)	1863
The Right Hon. Sir John Lawrence Bart G.C.B. K.C.I. (c)	1864
The Earl of Mayo K.P.	1869
John Strachey (d) (offg.)	1872
Lord Napier of Merchiston K.T. (e) (offg.)	1872
Lord Northbrook P.C. (f)	1872
Lord Lytton G.C.B. (g)	1876
The Marquess of Ripon K.G. P.C.	1880
The Earl of Dufferin K.P. G.C.B. G.C.M.G. P.C. (h)	1884
The Marquess of Lansdowne G.C.M.G.	1888
The Earl of Elgin and Kintardine P.C.	1894
Baron Curzon of Kedleston P.C.	1899
Baron Amulthill (offg.)	1904
Baron Curzon of Kedleston P.C.	1904
The Earl of Minto K.G. P.C. G.C.M.G.	1906
Baron Hardinge of Penshurst P.C. G.C.B. G.C.M.G. G.C.V.O. 180 (i)	1910
(a) Created Earl Canning 21 May 1859	
(b) Afterwards (by creation) Baron Napier (of Magdala)	
(c) Afterwards (by creation) Baron Lawrence	
(d) Afterwards Sir John Strachey G.C.B., C.I.E.	
(e) Afterwards (by creation) Baron Napier of Lislick	
(f) Afterwards (by creation) Earl of North- brook	
(g) Created Earl of Lytton, 28 April 1880	
(h) Created Marquess of Dufferin and Ava, 12 Nov. 1888	
(i) During tenure of office the Viceroy is Grand Master and First and Principal Knight of the two Indian Orders (G.M.S.I., and G.M.I.L.). On quitting office he becomes G.C.B. and G.C.I.E., with the date of his assumption of the Viceroyalty	

The Imperial Legislative Council.

The constitution of the Executive Council of the Government of India has been sketched for the purpose of legislation, and to bring the administration into close touch with public opinion the Executive Council is expanded by additional members into a great legislative assembly. The first step was taken in 1861 when the Indian Councils Act provided that for the better exercise of the power of making laws and regulations vested in the Governor-General-in-Council he should nominate additional members for the purposes of legislation only. The additional members were appointed for two years and joined the Council when it met for legislative purposes. The maximum number of members fixed by the Act was twelve of whom not less than one half were to be non-officials (holding no office under the Government) and in practice most of the non-officials were natives of India. Similar legislative councils were constituted in some of the provinces but the growth of these bodies will be considered when we come to deal with the provincial administrations.

The Act of 1892.

In 1892 important additions were made both to the constitution and the powers of the Legislative Council. The number of Additional members was raised to sixteen and the representative principle was introduced. Whilst the method of appointment was as before nomination by the Governor-General a certain number of nominations were made on the recommendation of specified persons, bodies and associations and in practice these recommendations were never refused. Of the sixteen Additional members six were usually officials and ten non-officials. Four of the non-officials were nominated on the recommendation of the non-official members of the provincial Legislative Councils, the fifth was recommended by the Calcutta Chamber of Commerce and the remaining five were chosen by the Governor-General either with a special view to the legislative business to be transacted or to secure the representation of all classes. The Council was also empowered to discuss the budget and to ask questions on matters of public interest.

Morley Minto Reforms.

The Imperial Legislative Council took its present shape under what is commonly called the Morley Minto reform scheme of 1909 and was embodied in the Indian Councils Act of that year. Two principles run through this scheme: (1) to secure the fair representation of all the varied interests in the country and (2) to give the Council a real influence in determining the character of the administration. The Imperial Legislative Council now consists of sixty Additional members of whom thirty five are nominated by the Governor-General and twenty five are elected by specified electorates. Of the nominated members not more than twenty-eight may be officials and three others who must not be officials must be nominated by the Mahomedans of the Punjab, the landholders of the Punjab, and the Indian commercial community respectively. The remaining four seats are at the Governor-

General's disposal to secure experts on special subjects or representatives of minor interests. Of the twenty-five elected members eleven are selected by the non-official members of the provincial Legislative Councils, two by each of the four largest provinces and one by each of the three other provinces. A twelfth is elected by the District and Local Boards of the Central Provinces, so that administration has no legislative council. Six members are elected by electorates of landowners in six provinces five by the Mahomedan community in each of the five provinces and two by the Chambers of Commerce in Calcutta and Bombay. The Governor-General in Council has the exceptional power of excluding a candidate whose reputation and antecedents are such that his election would be contrary to the public interest. An oath or affirmation of loyalty to the Crown is required of every member before he takes his seat. Members hold office for three years, and each triennium there is a general election for the Council.

Powers of the Council

The additions to the non-legislative powers of the Council by the Act of 1909 were also substantial. The Council can exercise a material influence on the Budget. The Finance Member first presents the preliminary estimates with an explanatory memorandum. On a subsequent day he makes such further explanations as he thinks necessary. Members can then propose resolutions regarding any proposed alteration in taxation, any proposed loan or any additional grant to Local Governments. When these resolutions are voted upon the estimates are taken by groups and resolutions may be moved on any heads of revenue or expenditure. Certain heads as for instance Customs and the Army are excluded from discussion. The Finance Member takes these discussions into consideration, and then presents his final budget. He describes the changes made and why any resolutions that have been passed have not been accepted. A general discussion of the budget then takes place but no resolution may be moved or vote taken. Government is not bound to act upon the resolution of the Council. This power is never likely to be used because the Government has an official majority on that body. This official majority was specially prescribed by the Secretary of State because as Parliament is in the last resort responsible for the good government of India the British Government through its mouthpiece the Secretary of State must have the means of imposing its will on the Government of India.

Apart from the Budget debates, members of Council now have the right to initiate the discussion of any question of public interest at any sitting of the Council by moving a resolution. The right of interpellation has also been expanded by the power of asking supplementary questions in order to elucidate a reply given to an original question. The President of the Council may disallow any question which, in his view cannot be answered consistently with the public interests.

Control over Legislation

The legislative powers of the Imperial Legislative Council are still regulated by the Act of 1861. Certain Acts of Parliament under which the Government of India is constituted cannot be touched and no law can be made affecting the authority of Parliament or allegiance to the Crown. With these exceptions the legislative powers of the Governor-General-in-Council over the whole of the British India are unrestricted. Measures affecting the public debt, or the revenues of India, the religion of any of His Majesty's subjects, the discipline or maintenance of the military or naval forces, and the relations of the Government with foreign states cannot be introduced by any member without the previous sanction of the Governor-General. Every Act requires the

Governor-General's assent. The assent of the Crown is not necessary to the validity of an Act, but the Crown can disallow any Act that has been passed.

Apart from these legislative powers the Governor-General-in-Council is authorised to make without calling in the Additional Members, regulations having the force of law for the less advanced parts of the country where a system of administration simpler than that in force elsewhere is desirable. In cases of emergency the Governor-General can on his own authority and without reference to his Council, make Ordinances which have the force of law for six months.

All Members of the Imperial and Provincial Legislative Councils are entitled to the prefix Hon'ble Sir during their term of office.

A—Elected Members

(Not to be less than 27)

Serial No	Name	Date of commencement of office	Date of expiry of term of office	Electorate
1	Nawab Saif-ud-Daulah Saheb Bahadur	11-1-13	10-1-16	Non official Member Madras
2	Mr Chakravarti Vijayaraghavachariar	Do	Do	Do Do
3	Sir Ibrahim Rahimtoola, K.C.S.E.	Do	Do	Do Bombay
4	Mr Chintamani Harilal Setalvad	Do	Do	Do Do
5	Babu Surendra Nath Banerji	15-1-13	14-1-16	Do Bengal.
6	Maharaja Ranajit Sinha of Nashipur	Do	Do	Do Do
7	Pandit Bishan Narayan Das	18-9-14	21-1-16	Do United Provinces.
8	Pandit Madan Mohan Malaviya	22-1-13	Do	Do Do
9	Khan Bahadur Mian Muhammad Shah	11-1-13	10-1-16	Do Punjab
10	Maung Mye	24-12-12	27-12-15	Do Burma
11	Mr Madhu Sudan Das, C.I.E.	2-1-13	24-1-16	Do Bihar and Orissa
12	Srijiit Ghanasyam Barua	11-1-13	10-1-16	Do Assam.
13	Mr M. B. Dadaboy	22-1-14	Do	District Councils and Municipal Committees, Central Provinces
14	Bama Rayanigara Venkataranga Bahadur of Panagal	18-1-13	17-1-16	Landholders, Madras.
15	Meherban Sardar Khan Bahadur Rustomji Jehangirji Vakil of Ahmedabad	7-1-13	6-1-16	Do Do Bombay (Sardars of Gujarat)
16	Maharaja Manindra Chandra Nandi of Kumbhagra	23-1-13	21-1-16	Landholders, Bengal.
17	Raja Kunalpal Singh, M.A. LL.B. of Kotla	22-2-13	27-12-15	Do, United Provinces (Landholders of Agra.)
18	Maharaja Kumar Gopal Saran Narain Singh of Tikari	28-12-12	27-12-15	Do Bihar and Orissa.
19	Sir Gangadhar Madho Chiknavia, K.C.I.E.	11-1-13	10-1-16	Do Central Provinces.
20	Khan Bahadur Mir Asad Ali Khan	18-1-13	17-1-16	Mohammedan Community, Madras
21	Sir Fazlulbhoj Currimbhoj Ebrahim Kt	11-1-13	10-1-16	Do Bombay
22	Mr Abdul Karim Abu Ahmed Ghuznavi	22-1-13	21-1-16	Do Bengal
23	Raja Sir Mohammad Ali Muhammad Khan, K.C.I.E., Khan Bahadur of Mahmoodabad.	19-1-13	17-1-16	Do United Provinces.
24	Mr Qumrul Huda Bar-at-Law	11-1-13	10-1-16	Do Bihar and Orissa.
25	F. H. Stewart, C.I.E.	6-6-14	27-12-15	Bengal Chamber of Commerce.
26	Mr T. W. Birkett	4-4-14	Do.	Bombay Chamber of Commerce.
27	Raja Saif-ud-Daulah Saheb Bahadur of Piplur	18-1-13	17-1-16	Mohammedan Landholders, United Provinces

B.—Nominated Members.

(Not to exceed 33)

Serial No	Name.	Date of Commencement of office.	Date of expiry of term of office.	Province or body represented
(a) OFFICIAL MEMBERS.				
Not more than 28				
1	Mr J McNeill	12-9-13	10-1-16	Bombay
2	Mr W Maud			Bihar and Orissa
3	Mr W H Cobb	13-12-13	10-1-16	The United Provinces.
4	Mr H. I. Maynard			The Punjab
5	Mr E V Arbuthnot			Burma
6	Mr J Walker C.I.E.	22-5-14	10-1-16	The Central Provinces
7	Lt Col P R T Gordon			Assam.
8	Lt Col Denis Brooke Blakeway C.I.E.	21-1-1	21-1-16	The N W F Province.
9	Mr J B Wood C.I.E.	21-2-14	20-1-16	Government of India
10	Mr H Sharp C.I.E.	21-1-13	Do	Do
11	Mr H Wheelock C.I.E.	Do	Do	Do.
12	Mr R P Russell	19-4-13	Do	Do
13	Mr J B Brunsyate C.I.E.	10-5-1	Do	Do
14	Surgeon-General Sir C P Lukis K.C.S.I.	6-12-1	Do	Do
15	Mr G H B Runkle K.C.L.D.	21-1-1	Do	Do
16	Mr C H Kesteven	Do	Do	Do
17	Mr A P Mudhuran C.I.			Do.
18	Major-General B Holloway C.I.			Do
19	Mr C F Low C.I.			Do
20	Mr R W Gillian C.I.			Do
21	Mr A H Grant C.S.I. C.I.E.			Do
22	Mr G B H Fell C.I.E.			Do.
23	Mr C H Harrison			Do.
(b) NON OFFICIAL MEMBERS				
1	Rai Situnath Ray Bahadur	22-1-13	21-1-16	Indian Commercial Community
2	Malik Umar Hyat Khan C.I.F. M.A. Tiwana	11-1-13	10-1-16	Muhammadan Community Punjab
3	Honv. Lt Col Raja Lal Chand C.S.I. of Lambagraon	Do.	Do	Landholders Punjab
4	Mrs H Abbott	12-4-13	11-4-16	

Present Constitution of the Council.

I.—The whole Council.

By the proviso to Regulation I for the Legislative Council of the Governor-General it is declared that it shall not be lawful for the Governor-General to nominate so many non-official persons that the majority of all the Members of the Council shall be non-officials

Officials—

- (a) Members of the Executive Council
(b) The Lieutenant-Governor or Chief Commissioner of the Province (1)
(c) Nominated Members

	7
	1
	27
Total	35

Non-Officials (2)—

- (a) Elected Members
(b) Nominated Members

	27
	5
Total	32

Official majority exclusive of the Governor-General

3

II.—The Additional Members

The Indian Councils Act 1901, section 10 provides that not less than one half of the Additional Members (exclusive of the Lieutenant-Governor or Chief Commissioner of the Province (1)) in which the Council may for the time being be assembled shall be non-officials.

(Present number of Additional Members—Officials (nominated) exclusive of the Lieutenant-Governor or Chief Commissioner (1) as aforesaid) (Non-officials (elected and nominated) Vacancies)

	36
	31
	5

Total

72

(For work of Imperial Legislative Council Session 1915-16, p. v.)

The Home Government.

The Home Government of India represents the gradual evolution of the governing body of the old East India Company. The affairs of the Company were originally managed by the Court of Directors and the General Court of Proprietors. In 1784 Parliament established a Board of Control with full power and authority to control and direct all operations and concerns relating to the civil and military government and revenues of India. It decrees the number of the Board was reduced and its powers were relaxed by the President the final precursor of the Secretary of State for India. With modifications this system lasted until 1858 when the Mutiny followed by the assumption of the Government of India by the Crown demanded a complete change. Under the Act of 1858, now merged in the consolidating measure passed in 1901, the Secretary of State is the constitutional adviser of the Crown on all matters relating to India. He inherits generally all the powers and duties which were formerly vested either in the Board of Control, or in the Company, the Directors and the Secret Committee in respect of the Government and revenues of India. He has the power of giving orders to every officer in India including the Governor-General and is in charge of all business relating to India which is transacted in the United Kingdom.

Secretary of State's Powers

Of these wide powers and duties many rest on his personal responsibility; others can be performed only in consultation with his Council and for some of these the concurrence of a majority of the members of his Council is required. The Secretary of State may act without consulting the Council in all matters where he is not expressly required by statute to act as Secretary of State in Council. Appointments by the Crown are made in his advice. Every official communication proposed to be sent to India must be laid before Council unless it falls under either of two reserved classes. One of these is secret communications dealing chiefly with war and peace relations with foreign Powers and Native States. The others are those which he may deem urgent. No matter for which the concurrence of a majority of Council is necessary can be treated as either secret or urgent. In ordinary business, for which the concurrence of a majority of Council is not required the Secretary of State is not bound to follow the advice of the Council. These provisions reserve to the Secretary of State a wide discretionary power of interference with the Government of India which is exercised in accordance with the temperament of the Secretary of State for the time being. But in all matters of finance the authority is that of the Secretary of State and the Council and is freely exercised.

The Council.

The Council of India originally consisted of fifteen members appointed by the Secretary of State. By an Act passed in 1907 it now consists of such number of members, not being less than ten or more than fourteen, as the Secretary of State may from time to time determine. The members hold office for seven

years, and this term may for special reasons of public advantage, which must be laid before Parliament be extended for five years more. Nine members must be persons who have served or resided in India for at least ten years, and who have not left India more than five years before their appointment. Several of them have usually belonged to the Indian Civil Service and have been lieutenant-governors of provinces or members of the Viceroy's Executive Council; others are soldiers, educationists, bankers, or men of diplomatic, official or mercantile experience. The object aimed at in the constitution of the Council is to give the Secretary of State, who has little knowledge of the details of the Indian administration, the help of a body of experts. In 1907 in connection with the passing of constitutional reform, two Indians, one a Hindu and the other a Mahomedan, were appointed to vacancies in the Council. This practice is certainly to be maintained. The present Indian members are a Mahomedan and a Sikh.

The India Office

Associated with the Secretary of State and the India Council is a secretariat known as the India Office, based at Whitehall. The Secretary of State has two Under-Secretaries, one permanent the other parliamentary to whom some of his minor duties are delegated. Appointments to the establishment are made by the Secretary of State in Council but junior situations must be filled in accordance with the general regulations governing admission to the Home Civil Service.

The whole cost of the India Office is borne by the revenues of India (though the Home Government makes certain grants and remission in lieu of a direct contribution amounting to £10,000 a year). The total net cost including pensions is about £2,40,000 per annum.

Secretary of State.

The Right Hon. Austen Chamberlain, M.P.

Under Secretaries of State.

Sir Thomas W. Holderness, K.C.B., K.C.S.I.
The Right Hon. Lord Dallington, K.C.M.G., D.S.O.

Assistant Under Secretary of State

Sir Lionel Abrahams, K.C.B.

Council.

Vice-President, Sir Stuyling William Edgerley, K.C.V.O., C.I.E.
Sir Felix O. Schuster, Bart.
Sir Theodore Morrison, K.C.I.E.
Gen. Sir Charles C. Egerton, G.C.B., D.S.O.
Abbas Ali Balg, C.S.I., I.L.D.
Laurence Currie.
Sir William Duke, K.C.S.I., K.C.I.E.
Sir Dar Darjit Singh, C.S.I.
Sir Charles Arnold White.
Sir Murray Hambrick, K.C.S.I., C.I.E.
Sir Charles S. Bayly, G.O.I.E., K.C.S.I., I.S.O.
Clerk of the Council, Sir Lionel Abrahams, K.C.B.

Deputy Clerk of the Council, James H. Brooke, C.I.E.

Private Secretary to the Secretary of State Francis H Lucas, C.B.

Assistant Private Secretary J C Walton

Political A.D.C. to the Secretary of State Lieut. Col. Sir J R Dunlop Smith K.C.S.I.

Private Secretary to Sir T W Holderness C H Kisch

Private Secretary to Lord Islington S K Brown

Correspondence Departments.

SECRETARIES

Financial, F W Newmarch C.B.I. and W Robinson

Judicial and Public Malcolm C O Setor

Military Gen. Sir E G Barron G.C.B. and J H Scarborough C.B.E.

Political and Secret Sir E A Hirtz L, K.C.B.

Public Works Hermann A Haine

Revenue and Statistics L I Kitchin K.C.

Director in Chief of the Indo-European Telegraph Public Works Department R C Barker, C.B.E.

ACCOUNTANT-GENERAL DEPARTMENT —
Accountant General Walter Badcock C.B.I.
also Director of Funds and Official Agent to Administrators-General in India

STORE DEPARTMENT—INDIA OFFICE BRANCH —
Director-General George H Collier

INDIA STORE DEPOT—Belvedere Road Lambeth, S. P. Superintendent of the India Store Depot, Captain G T Wingfield R.N.

REGISTRY AND RECORD DEPARTMENT—Registrar and Superintendent of Records W Foster C.B.E.

Miscellaneous Appointments

Government Director of Railway Companies Sir H G Burt K.C.I.A.

Librarian * Fredk W Thomas, M.A. Hon. Ph.D. (Munich)

Secretary for Indian Students C F Mallet

Educational Adviser to Indian Students T W Arnold C.B.E. Litt D. M.A. (21 Cromwell Road S.W.)

Medical Board for the Examination of Officers of the Indian Services—President Surg. Gen. Lieut.-Col. Sir R H Charlton G.C.V.O. M.D. I.M.S. (ret'd) F.R.C.S.I. Member Lt.-Col. J Anderson M.B., L.M.S. (ret'd)

Legal Adviser and Solicitor to Secretary of State Sir S G Balg C.B.E.

Inspector of Military Equipment and Clothing Major Gen. Sir John Steevens, K.C.B.

Surveyor and Clerk of the Works T H Winn A.B.E.B.A.

Ordnance Consulting Officer Lieut. Col. M S C Campbell C.B.E. R.A.

Officers of the Indian Army attached to the General Staff War Office Lieut. Col. A G Stuart, Lt.-Col. L R. Vaughan, Major C L. Storr, Capt. Sir G Duff Sutherland Dunbar Bart.

Officers of the Indian Army attached to the India Office—Colonels C H Selwyn A P Harris, Lieut. Col. J Strachey M.V.O.

Consulting Engineer Sir A. M. Rendel, K.C.I.E.
Stockbroker Horace Hubert Scott.

Auditor H A. Cooper

INDIAN TROOP SERVICE—The business of the Troop Service is under the superintendence of Graeme Thompson Director of Transport at the Admiralty

Secretaries of State for India.

	Assumed charge
Lord Stanley P.C. (a)	1858
The Right Hon. Sir Charles Wood Part. (b)	1859
Earl de Grey and Ripon P.C. (c)	1860
Viscount Cranborne (d)	1866
The Right Hon. Sir Stafford Northcote Bart. (e)	1867
The Duke of Argyll K.T. P.C.	1868
The Marquis of Salisbury P.C. (and time)	1874
The Right Hon. Gathorne Hardy P.C. created Viscount Cranbrook 14 May 1875 (f)	1875
The Marquis of Hartington P.C. (g)	1880
The Earl of Kimberley P.C.	1882
Lord Randolph Churchill P.C.	1886
The Earl of Kimberley K.G. P.C. (2nd time)	1886
The Right Hon. Sir Richard Assheton Cross G.C.B. P.C. created Viscount Cross 12 Aug 1886	1886
The Earl of Kimberley K.G. P.C. (3rd time)	1892
The Right Hon. H H Fowler (h)	1894
Lord George F Hamilton P.C.	1895
The Right Hon. St John Brodrick (i)	1903
The Right Hon. John Morley O.M. (j)	1904
The Right Hon. The Earl of Crewe, K.G.	1910
The Right Hon. Viscount Morley of Blackburn O.M.	1911
The Right Hon. The Earl of Crewe K.G. (k)	1911
The Right Hon. Austen Chamberlain M.P.	1915
(a) Afterwards (by succession) Earl of Derby	
(b) (by creation) Viscount Halifax	
(c) " (by creation) Marquess of Ripon	
(d) " (by succession) Marquess of Salisbury	
(e) (by creation) Earl of Iddesleigh	
(f) (by creation) Earl Cranbrook	
(g) (by succession) Duke of Devonshire	
(h) " (by creation) Viscount Wolverhampton, G.C.B.	
(i) " (by succession) Viscount Middleton	
(j) " (by creation) Viscount Morley of Blackburn O.M.	
(k) " (by creation) Marquess of Crewe, K.G.	

India Council Bill.

In July 1913 Lord Crowe, Secretary of State for India, outlined in the House of Lords certain ideas for the reform of the India Council. The purport of these changes was to reduce the number of the Council, and to substitute departments with certain independent powers for the Committees which discharge the detailed work of the Council. Nothing more was heard of this scheme until June 1914 when there was published the text of the amending Bill, with an explanatory memorandum thereon.

Text of the Bill.

Appended is the full text of the Bill —

1.—(1) The Council of India constituted under the Government of India Act 1858 (which Act as amended by any subsequent enactment is hereinafter referred to as the principal Act) shall consist of such number of members not less than seven nor more than ten as the Secretary of State may from time to time determine.

(2) Unless at the time when an appointment is made to fill a vacancy in the Council two at least of the then existing members of the Council were at the time of their appointment domiciled in India, the person appointed to fill the vacancy must be domiciled in India, and unless at such time as aforesaid six at least of the then existing members were at time of their appointment either domiciled in India or were persons who had served or resided in India for at least ten years and had not ceased so to serve or reside more than five years before the date of their appointment the person appointed to fill the vacancy must be either domiciled in India or must have served or resided in India for at least ten years and have not ceased so to serve or reside more than five years before the date of his appointment.

The person appointed to fill a vacancy for which a person domiciled in India is alone eligible shall be selected from amongst the persons whose names appear on a list of persons domiciled in India chosen for the purpose by the members (other than official members) of the Legislative Councils of the Governor General, Governors, Lieutenant Governors and Chief Commissioners in such manner, subject to such conditions and restrictions and in such number as may be prescribed by regulations to be made by the Secretary of State in Council or by directions issued by the Secretary of State thereunder.

(3) The yearly salary to be paid to a member of the Council shall be one thousand two hundred pounds provided that such members appointed after the commencement of this Act who at the date of their appointment shall be domiciled in India shall be paid an additional yearly allowance of six hundred pounds.

(4) Where the Secretary of State is of opinion that a person possessing special qualifications as a financial expert should be appointed to be a member of the Council on special terms, he may after recording in a minute to be laid before Parliament the special reasons for the appointment and the special terms on which the appointment is to be made make the appointment and the person so appointed shall notwithstanding any thing in the principal Act, or this Act, hold office

for such term and on such conditions and shall in respect thereof be entitled to such salary and to such pension and other rights and privileges (if any) as His Majesty may by Order in Council in each case determine.

Provided that not more than one person appointed under this provision shall be a member of the Council at the same time.

2.—(1) Notwithstanding anything in section nineteen of the principal Act it shall not be necessary for an order or communication sent to India or an order in the United Kingdom in relation to the government of India to be signed by a Secretary of State in such cases as the Secretary of State in Council may otherwise direct, but every such order and communication shall purport to be made by the Secretary of State in Council.

(2) For section twenty of the principal Act (which relates to the powers of the Secretary of State to divide the Council into committees and to regulate the transaction of business in Council) the following section shall be substituted —

It shall be lawful for the Secretary of State in Council to make rules and orders for the transaction of business as regards the powers which under the principal Act are to be exercised by the Secretary of State in Council.

“Provided that any such rule or order so far as it affects any matter or question in respect of which the concurrence of a majority at a meeting of the Council is required by this Act shall not be valid unless made with the concurrence of a majority of the members of Council present at the meeting of Council at which the rule or order is passed.”

(3) Such rules and orders as aforesaid may notwithstanding anything in sections twenty, twenty-four, twenty-five and twenty-six of the principal Act, provide as respects such matters as may be specified in the rules and orders —

(a) for enabling powers of the Secretary of State in Council to be exercised otherwise than at a meeting of the Council and where necessary for that purpose for dispensing with any requirement of the principal Act as to the concurrence of the majority of votes of members of Council.

(b) for dispensing with the necessity of submitting to Council or depositing in the Council Room for the perusal of members orders and communications proposed to be sent to India or to be made in the United Kingdom by the Secretary of State, and of recording and notifying to members of Council the grounds on which any order or communication to India has been treated as urgent.

(4) At a meeting of the Council the quorum shall be three, and meetings of the Council shall be convened and held when and as the Secretary of State may from time to time direct.

(5) Any document required by the principal Act to be signed by two or more members of the Council either with or without the counter signature of the Secretary of State or one of his Under Secretaries or Assistant Under Secretaries

may be signed in such manner as the rules and orders made by the Secretary of State in Council for the transaction of business in his Council may prescribe and any such document if signed in accordance with such rules and orders shall be as valid as if it had been signed in accordance with the provisions of the principal Act.

(6) Section twenty-seven of the principal Act (which enables the Secretary of State to send certain secret orders without communicating them to the members of his Council) shall extend to any order not being an order in respect of which concurrence of a majority at the meeting of the Council is required by the principal Act, which relates to any question gravely affecting the internal tranquillity of India or the interests of India in any other country or the peace or security of any part of His Majesty's Dominions, and which in the opinion of the Secretary of State is of the nature to require secrecy and it is further declared that the said section shall apply to any order which the Secretary of State may send in reply to a despatch received and dealt with by him under section twenty-eight of the principal Act.

(7) All rules and orders made under this section shall be laid before Parliament as soon as may be after they are made, and if an address is presented to His Majesty by either House of Parliament within the next subsequent thirty days on which that House has sat after any such rule or order is laid before it praying that the rule or order may be annulled His Majesty in Council may annul the rule or order and it shall henceforth be void but without prejudice to the validity of anything previously done thereunder.

The Bill Explained.

The publication of the Bill was accompanied by a memorandum explaining its provisions in the following terms—

The object of this Bill is to amend the Government of India Act 1858. The Act of 1858 in transferring the Government of India to the Crown created the Council of India defined its powers and those of the Secretary of State and prescribed in great detail the procedure to be followed in the transaction of business.

The Act of 1858 has as regards the numerical strength of the Council and the conditions of office on it been amended several times. The procedure for the transaction of business is practically unaltered.

By the Act of 1858 the strength of the Council was fixed at fifteen members of whom not less than nine were to be persons who at the time of appointment had served or resided in India for ten years and had not last left India more than ten years. The members were to hold office during good behaviour but were removable upon an address of both Houses of Parliament. Their salary was fixed at £1,200 a year.

These provisions have since been altered. The Council now consists of such number of members not less than ten and not more than fourteen as the Secretary of State may from time to time determine. Nine members must be persons who at the time of appointment had served or resided in India for ten years, and had not last left India more than five years. The terms of office is limited to seven years but the

Secretary of State may re-appoint a member for a further period of five years. The salary is £1,000 a year. Since 1807 it has been the recognised practice of the Secretary of State to reserve two appointments on the Council for Indians.

The procedure for the transaction of business established by the Act of 1858 cannot be varied by rules. The powers of the Secretary of State in Council may be exercised only at meetings of the Council. A Council must be held every week and a quorum of five members is required. In certain matters however trivial in themselves the sanction of a majority of votes at a meeting is required. In other matters the Secretary of State may act alone but except in cases where secrecy or urgency can be claimed his proposed order must lie a week on the Council table before it is sent. The Act contemplates that all business before coming to the Council should be dealt with in Committee, and the Council is divided for this purpose into several Standing Committees.

It is proposed by clause 1 of the Bill to make certain changes in the strength and composition of the Council and in the emoluments of the members. Also to take power to make rules for simplifying the business procedure of the Council.

With a simplified procedure much of the unimportant work that now occupies the time of the Standing Committees and the Council would be disposed of by the Secretary of State in communication with and with the assistance of individual members. Committees being specially nominated by him when required. A council of ten to fourteen members would then be needlessly large. It is proposed to fix the number at seven to ten and to return to the rate of salary (£1,400 a year) allowed by the Act of 1858.

It is further proposed to convert the present practice of appointing two Indians to the Council into a statutory requirement to provide that they shall be chosen from names submitted by Indian Legislative Councils and to grant to them an allowance of £600 a year in addition to salary in view of the expense of residing out of their own country.

Provision is also made to enable the Secretary of State to appoint to the Council a financial member on special terms as to salary, pension and tenure of office. The necessity for an exceptional power of this kind has been recognised by the Royal Commission on Indian Currency.

Clause 2 of the Bill provides for the simplification of business procedure. It enables the Secretary of State in Council to make rules to modify the procedure prescribed by the Act of 1858. The rules as and when made are to be laid before Parliament. The requirement of a weekly meeting of the Council is also dispensed with and the quorum reduced. The opportunity is taken to enlarge in a way which expert opinion has shown to be desirable the category of cases which may be dealt with by the Secretary of State in his "Secret" Department without informing or consulting his Council.

On the motion of Lord Curzon the House of Lords rejected the Bill by 96 votes to 38.

The Provincial Governments.

British India is divided into eight large provinces and six lesser charges each of which is termed a Local Government. The eight major provinces are the Presidencies of Madras, Bombay, and Bengal, the Lieutenant-Governorships of the United Provinces, The Punjab, Burma, and Bihar, and the Chief Commissioner'ship of the Central Provinces. The minor provinces are Assam, the North West Frontier Province, Paluchistan, Coorg, Ajmer, Merwar, and the Andaman Islands. The original division of British authority in India was between the Presidencies of Bengal, Madras and Bombay. Bengal afterwards developed into and was separated from the Government of India and then was gradually divided into provinces as the tide of conquest brought under administration areas too large to be controlled by a single authority. The status and area of these provinces have been varied from time to time to meet the changed conditions of the day. The most recent of these changes was the separation of the North West Frontier from the Punjab in 1901, the division of Bengal into two provinces in 1905 and the final adjustment made in accordance with His Majesty the King's announcement at the Durbar of 1911 when by the newly created province of Eastern Bengal and Assam disappeared, and Bengal was re-divided into the Presidency of Bengal, the Lieutenant-Governorship of Bihar and Orissa, and the Chief Commissioner'ship of Assam, whilst the headquarters of the Government of India were moved from Calcutta to Delhi and the City of Delhi, with an expanse of territory surrounding it was taken under the direct administration of the Government of India. All Local Governments alike are under the supervision and control of the Governor-General in Council. They must obey orders received from him and they must communicate to him their own proceedings. But each Local Government is the Executive head of the administration within the province. By custom all appointments to Local Governments are for a term of five years.

The Three Classes.

The three Presidencies occupy a superior position. The Civil administration of each is vested in a Governor-in-Council appointed by the Crown and usually drawn from English public life. On certain matters they correspond directly with the Secretary of State, a privilege not possessed by other provincial Governments. The Governors are assisted by a Council composed of three members, two members of the Civil Service and, under the Indian Councils Act of 1909, a fourth member who is usually an Indian. Like the Governor-General they are addressed as Your Excellency and they are escorted by a body guard. The maximum salaries as fixed by Act of Parliament are Rs. 1,20,000 for a Governor and Rs. 64,000 for a member of Council.

Lieutenant-Governors are appointed by the Governor-General subject to the approbation of the Crown. They must have served for at least ten years in India. Under the Indian Councils Act power was taken to create executive councils in the Lieutenant-Governorships and this has been applied to Bihar where the Lieutenant-Governor is assisted by a Council

consisting of two members of the Civil Service and one Indian. Lieutenant-Governors are addressed as Your Honour. Their maximum salary Rs. 1,00,000 is fixed by Act of Parliament.

Chief Commissioners stand upon a lower footing, being delegates of the Governor-General in Council. In theory a Chief Commissioner administers his province on behalf of the Governor-General-in-Council, who may resume or modify the powers that he has himself conferred. In practice the powers entrusted to Chief Commissioners of the Central Provinces are as wide as those exercised by a Lieutenant-Governor. The salary of a Chief Commissioner is Rs. 50,000 but in the case of the Central Provinces this was raised to Rs. 62,000 in consideration of the addition of Berar to his Government.

Provincial Councils

The changes made in the constitution and non-legislative functions of the Legislative Councils of Madras and Bombay by the Act of 1909 more than doubled the number of members elected by specially constituted electorates was introduced and powers were given to members to debate and move resolutions on the provincial financial statements, to move resolutions on matters of general public interest and to ask supplementary questions. A description of the system in Bombay will show how the scheme works. The Bombay Legislative Council is composed of four ex-officio members (the three members of the Executive Council and the Advocate-General) and 44 additional members. Of the additional members the Governor nominates twenty-three (of whom not more than fourteen may be officials) and 21 are elected. The Government is thus without a majority of officials in the Council. Of the elected members, eight are elected by groups of municipalities and the District Boards four by Mahomedan electorates and three by electorates of the land holding classes. The Bombay University, the Bombay Municipal Corporation, the Bombay Chamber of Commerce, the Karachi Chamber of Commerce and the Mill owners Association and the Indian Commercial Community each elect one member. The regulations for the formation of electorates, and as to the qualifications and disqualifications of candidates and voters, are similar to those made in the case of the Supreme Council.

The rules for the discussion of the annual financial statement are similar to those applicable to the Supreme Council. The Financial Statement is presented and considered as a whole and then in detail and resolutions may be moved. The Government is not bound by any resolutions which the Council may pass. Matters of general public interest under the control of Local Governments may be made the subject of resolutions. Laws passed by these Legislative Councils require the sanction of the Governor-General and may be disallowed by the Crown.

In consultation in functions, and in the system of special electorates, the Legislative Councils in the Lieutenant-Governorships resemble in all the essential particulars the Legislative Council of Bombay.

The Secretariat

Each Local Government works through a secretariat, which is divided into various departments, each under a Secretary. In addition to the Secretaries there are special departmental heads such as the Inspectors General of Police, Jails and Registration, the Director of Public Instruction, the Inspector General of Civil Hospitals or Surgeon General, the Sanitary Commissioner and the Superintendent of the Civil Veterinary Department. There are also Chief Engineers for Public Works and Irrigation who are like Secretaries to Government. In nearly all the Provinces except Bombay the revenue departments are administered under Government, by a Board of Revenue.

The District Officer

The administrative system is based on the repeated sub-division of territory each administrative area being in the responsible charge of an officer who is subordinate to the officer next in rank above him. The most important of these units is the District and India comprises more than 250 Districts with an average area of 4,400 square miles and an average population of 3,100,000. In Madras there is no local officer above the head of the District, elsewhere a Commissioner has the supervision of a Division comprising from four to six Districts. The head of a District is styled either the Collector and District Magistrate or the Deputy Commissioner. It is the representative of the Government and embodies the power of the State. He is concerned in the first place with the land and the land revenue. He has also charge of the local administration of the excise, income tax, stamp duty and other sources of revenue. As a Magistrate of the first class he can imprison for two years and fine up to a thousand rupees. In practice he does not try many criminal cases although he supervises the work of the other Magistrates in the District.

In addition to these two main departments the Collector is interested in all matters pertaining to the welfare of the people. In some branches of the administration his functions are in consequence of the formation of special departments such as those of Public Works, Forests, Jails, Sanitation and Education. His direct share was formerly the case but even in matters dealt with by separate departments his active co-operation and direction in council are needed. The Municipal Government of all considerable towns is vested in Municipalities but it is the duty of the Collector to guide and control their working. He is usually the Chairman of the District Board which with the aid of subsidiary boards, maintains roads, schools and dispensaries and carries out sanitary improvements in rural areas.

Other Officers.

Other important district officers are the Superintendent of Police, who is responsible for the discipline and working of the police force and the Civil Surgeon, who (except in Bombay) is the head of the medical and sanitary administration. The local organisation of Government Public Works, Forests, Education and other special departments varies in different parts of the country. Each District has its own law officer, styled the Government Pleader.

The Districts are split up into sub-divisions, under Junior Officers of the Indian Civil Ser-

vices or members of the Provincial Service called Deputy Collectors. In Madras, Bombay and the United Provinces there are smaller sub-district units called taluks or tahsils, administered by tahsildars (Bombay Mamlatdars), with naib tahsildars or mahalkaris. The tahsildar is assisted by subordinate officers, styled revenue inspectors or kanoongos and the village officers. The most important of the revenue, the karnam karkun or patwar, who keeps the village accounts, and the chaudkdar or village watchman.

Trend of Provincial Government

The relations of the Provincial administrations with the Government of India form the subject of incessant discussion. On the one side there are the strong centralisers who would focus all authority in the Government of India, on the other those stout advocates of provincial autonomy who would make the local governments virtually independent of the Government of India. The trend of Indian policy has been the direction of increasing authority to the Provincial Governments and the control and interference of the Government of India has been materially reduced, especially in financial matters. There was a marked development of this policy embodied in the dispatch of the Government of India which submitted to the Secretary of State the proposal to remove the headquarters of the Government of India from Calcutta to Delhi. This paragraph thus indicated the idea of its supreme authority is although the strict interpretation placed upon it by some Indian nationalists had to be repudiated it means the most authoritative expression of the trend of Indian policy.

The maintenance of British rule in India depends on the ultimate supremacy of the Governor General in Council and the Indian Councils Act of 1909 is the best testimony to the impossibility of allowing matters of vital concern to be decided by a majority of non-official votes in the Imperial Legislative Council. Nevertheless it is certain that in the course of time the just demand of Indians for a larger share in the government of the country will have to be satisfied and the question will be how this devolution of power can be conceded without impairing the supreme authority of the Governor General in Council. The only possible solution of the difficulty would appear to be gradually to give the Provinces a larger measure of self-government until at last India would consist of a number of administrations autonomous in all provincial affairs with the Government of India, above them all and possessing power to interfere in case of misgovernment but ordinarily restricting their functions to matters of Imperial concern. In order that this consummation may be attained it is essential that the supreme Government should not be associated with any particular Provincial Government. The removal of the Government of India from Calcutta is therefore a measure which will, in our opinion, materially facilitate the growth of Local Self Government on sound and safe lines. It is generally recognised that the capital of a great central Government should be separate and independent, and effect has been given to this principle in the United States, Canada and Australia.

Administrative Divisions.

Provinces.	No of Districts.	Area in Square miles.	Population (1911)
Ajmer Merwara	2	2,711	01 396
Andamans and Nicobars		8 143	26 459
Assam	12	52,939	6 718 685
Baluchistan	6	45 804	414 412
Bengal	28	78 412	45 483 077
Bihar and Orissa	21	83 205	34 490 084
Bombay (Presidency)	26	123 064	19 672,042
Bombay	26	75 918	16 118 042
Sind	6	47 066	3 513,435
Aden		80	46 166
Burma	41	236 738	12,115,217
Central Provinces and Berar	22	100 345	13 916 308
Cooch	1	1 582	174 976
Madras	24	141 726	41 405 404
North West Frontier Province (Districts and administered Territories)	5	16 466	2 196 983
Punjab	29	97 200	19 974 956
United Provinces of Agra & Oudh	48	107 164	47 182,044
Agra	38	83 198	34 624 040
Oudh	12	23 966	12 558 004
Total British Territory	261	1 097 901	244 267 542

States and Agencies	No of Districts.	Area in Square miles.	Population (1911)
Baluchistan States	0	86 511	308 432
Baroda State		8 099	2,032 708
Bengal States		32 773	4 538 161
Bombay States		65 761	7,411 567
Central India Agency		78 772	9 358 980
Central Provinces States		31 188	2,117 002
Eastern Bengal and Assam States			575,835
Hyderabad State		82,598	13 374 676
Kashmir State		80 900	3,158 126
Madras States		9 969	4,811 841
Cochin State			918 110
Travancore State			3 428 975
Mysore State		29 444	5,808 193
North West Frontier Province (Agencies and Tribal areas)			1 622,094
Punjab States		36 592	4,212 794
Rajputana Agency		127,541	10 330,452
Sikkim			87 930
United Provinces States		5 079	832,036
Total Native States		875,267	70,864,996
Grand Total, India		1,773 168	315 132,538

The Bombay Presidency

The Bombay Presidency stretches along the west coast of India from Sind in the North to Kanara in the South. It embraces with its feudatories and Aden an area of 186,923 square miles and a population of 27,084,317. Of this total 65,761 square miles are in Native States with a population of 7,411,875. Geographically included in the Presidency but under the Government of India is the first class Native State of Baroda with an area of 8,182 square miles and a population of 2,082,798. The outlying post of Aden is under the jurisdiction of the Bombay Government. It has an area of 80 square miles and a population of 46,165.

The Presidency embraces a wide diversity of soil, climate and people. In the Presidency Proper are the rich plains of Gujarat watered by the Nerbudda and the Tapi, whose fertility is so marked that it has long been known as the Garden of India. South of Bombay City the province is divided into two sections by the Western Ghats, a range of hills running parallel to the coast. Above Ghats are the Deccan Districts with a poor soil and an arid climate south of these come the Karnatic districts. On the sea side of the Ghats is the Konkan a rice growing tract intercepted by creeks which make communication difficult. Then in the far north is Sind, totally different from the Presidency Proper a land of wide and monotonous desert except where irrigation from the Indus has brought abounding fertility.

The People.

The population varies as markedly as soil and climate. In Sind Mahomedans predominate. Gujarat has remained true to Hinduism although long under the dominion of powerful Mahomedan kings. Here there is an amplitude of caste divisions and a people, who although softened by prosperity are amongst the keenest trading races in the world. The Deccan peasant has been seasoned by adversity the saying goes that the Deccan expects a famine one year in every three and gets it. The population is much more homogeneous than in Gujarat and thirty per cent are Mahatras. The Karnatic is the land of the Lingavets, a Hindu reforming sect of the twelfth century and in the Konkan there is a large proportion of Christians. Four main languages are spoken Sindhi Gujarati, Marathi and Kanarese with Urdu a rough lingua franca where English has not penetrated. The main castes and tribes number five hundred.

Industries.

The principal industry is agriculture, which supports sixty four per cent of the population. In Sind the soils are wholly alluvial, and under the influence of irrigation produce yearly increasing crops of wheat and cotton. In Gujarat they are of two classes the black cotton soil which yields the famous Broach cottons, the finest in India, and alluvial which under careful cultivation in Ahmedabad and Kaira makes splendid garden land. The dominant soil characteristic of the Deccan is black soil, which produces cotton, wheat, gram and millet, and in certain tracts rich crops of sugar cane. The Konkan is a rice land, grown under the abundant rains of the submontane regions and in the south the Dharwar cotton vies with Broach as the best in India. There

are no great perennial rivers suitable for irrigation, and the harvest is largely dependent upon the seasonal rainfall, supplemented by well irrigation. A chain of irrigation works, consisting of canals fed from great reservoirs in the region of unfailing rainfall in the Ghats, is gradually being completed and this will ultimately make the Deccan immune to serious drought. More than any other part of India the Presidency has been scourged by famine and plague during the past fifteen years. The evils have not been unmitigated by tribulation has made the people more self reliant and the rise in the value of all produce, synchronising with a certain development of industry has induced a considerable rise in the standard of living. The land is held on what is known as the ryotwari tenure that is to say each cultivator holds his land direct from Government under a moderate assessment, and as long as he pays this assessment he cannot be dispossessed.

Manufactures.

Whilst agriculture is the principal industry others have no inconsiderable place. The mineral wealth of the Presidency is small, and is confined to building stone, salt extracted from the sea and a little manganese. But the handicrafts are widely distributed. The handloom weavers produce bright coloured saris and to a considerable extent the exquisite knotees of Ahmedabad and Surat. Bombay silver ware has a place of its own as well as the brass work of Poona and Nasik. But the tendency is to submerge the indigenous handicrafts beneath industry organised on modern lines. Bombay is the great centre in India of the textile trade. This is chiefly found in the headquarter city, Bombay, where the industry embraces 3,049,172 spindles and 48,846 looms and employs 109,860 hands and consumes 3,773,133 cwt. of cotton. This industry is now flourishing, and is steadily rising in efficiency. In lieu of producing immense quantities of low grade yarn and cloth, chiefly for the China market, the Bombay mills now turn out printed and bleached goods of a quality which improves every year and the principal market is at home. Whilst the industry centres in Bombay City there are important offshoots at Ahmedabad, Broach and Sholapur. In Ahmedabad there are 978,819 spindles and 22,705 looms; in Sholapur 28,060 spindles and 3,460 looms and in the Presidency 47,54,894 spindles and 8,438 looms. It is expected that the prosperity of the Bombay trade will be quickened, as a project now in operation for the substitution of electricity for steam—the electricity is generated at a hydro-electric station in the Ghats, fifty miles distant—furnishes cheap and efficient power. Its situation on the western sea board in touch at once with the principal markets of India and the markets of the west, has given Bombay an immense sea borne trade. The older ports, Surat, Broach, Cambay and Mandvi were famous in the ancient days, and their bold and hardy mariners carried Indian commerce to the Persian Gulf and the coasts of Africa. But the opening of the Suez Canal and the increasing size of ocean steamers have tended to concentrate it in modern ports with deep water anchor-

agoes, and the sea borne trade of the Presidency is now concentrated at Bombay and Karachi although attempts are being made to develop Mormugao in Portuguese territory into an outlet for the trade of the Southern Mahratta Country. The sea borne trade of the Bombay Presidency (excluding Sind) was valued in 1914-15 at Rs. 15,00,00,000 (imports Rs. 14,00,00,000 exports Rs. 51,00,00,000) and of the coasting trade at Rs. 44,00,00,000.

Administration

The Presidency is administered by a Governor-in-Council. The Governor is appointed by the Crown, and is usually drawn from the ranks of those who have made their mark in English public life. He is assisted by a Council of three members, two of whom are drawn from the Indian Civil Service and the third in practice is an Indian. Each member takes special charge of certain departments and cases where differences of opinion occur or of special importance are decided in Council. All papers relating to public service business reach Government through the Secretariat, divided into five main departments each under a Secretary: (a) Revenue and Financial, (b) Political, Judicial, and Special, (c) General, Educational, Marine and Ecclesiastical, (d) Ordinary Public Works, (e) Irrigation. The senior of the three Civilian Secretaries is entitled the Chief Secretary. The Government frequently moves. It is in Bombay from November to the end of March, at Mahabaleswar from April to June, in Poona from June to September and at Mahabaleswar from October to November, but the Secretariat is always in Bombay. Under the Governor-in-Council the Presidency is administered by four Commissioners. The Commissioner in Sind has considerable independent powers. In the Presidency Proper there are Commissioners for the Northern Division, with headquarters at Ahmedabad, the Central Division at Poona, and the Southern Division at Belgaum. Each district is under a Collector, usually a Government Civilian, who has under him one or more Civilian or Assistant Collectors, and one or more Deputy Collectors. A collectorate contains on an average from eight to ten talukas each consisting of from one to two hundred villages whose whole revenues belong to the State. The village officers are the patil who is the head of the village both for revenue and police purposes, the talati or kulkarni clerk and accountant, the messenger and the watchman. Over each Taluka or group of villages is the munsif who is also a subordinate magistrate. The charge of the Assistant Deputy Collector contains three or four talukas. The Collector and Magistrate is over the whole District. The Commissioners exercise general control over the Districts in their Divisions. The control of the Government over the Native States of the Presidency is exercised through Political Agents.

Justice.

The administration of justice is entrusted to the High Court sitting in Bombay and comprising a Chief Justice, who is a barrister, and six puisne judges, either Civilian, Barristers or Indian lawyers. In Sind the Court of the Judicial Commissioner (three

judges one of whom must be a barrister) is the highest court of civil and criminal appeal. Of the lower civil courts the court of the first instance is that of the Subordinate Judge recruited from the ranks of the local lawyers. The Court of first appeal is that of the District or Assistant Judge or of a first class subordinate judge with special powers. District and Assistant Judges are Indian Civilian, or members of the Provincial Service. In cases exceeding Rs. 5,000 in value an appeal from the decision of the Subordinate or Assistant Judge and from the decision of the District Judge in all original suits lies to the High Court. The District and Assistant Judges exercise criminal jurisdiction throughout the Presidency but original criminal work is chiefly disposed of by the Executive District Officers. Capital sentences are subject to confirmation by the High Court. In some of the principal cities Special Magistrates exercise summary jurisdiction (Bombay has four Presidency Magistrates, as well as Honorary Magistrates exercising the functions of English Justices of the Peace) and a Court of Small Causes corresponding to the English County Courts.

Local Government

Local control over certain branches of the administration is secured by the constitution of local boards and municipalities, the former exercising authority over a District or a Taluka and the latter over a city or town. These bodies are composed of members either nominated by Government or elected by the people, who are empowered to expend the funds at their disposal on education, sanitation, the construction of roads and tanks and general improvements. Their funds are derived from cesses on the land revenue, the toll and ferry funds. The tendency of recent years has been to increase the elective and reduce the nominated element to allow these bodies to elect their own chairmen whilst large grants have been made from the general revenues for water supply and drainage.

Finance

The finance of the provincial governments is marked by definite steps toward provincial financial autonomy. Up to 1870 there was one common purse for all India, since then progressive steps have been taken to increase the independence of local Governments. Broadly certain heads of revenue are divided with the Imperial Government whilst certain growing heads of revenue varying in each province are allotted to the local Government. Thus in Bombay the land revenue, stamp revenue and revenue from assessed taxes are divided with the Government of India. All other local sources of revenue go intact to the local Government. The provincial Budget for 1915-16 shows an opening balance of Rs. 154 lakhs, revenue 742 lakhs, expenditure 771 lakhs and the closing balance Rs. 121 lakhs. These large balances are due to grants from the Imperial Governments for non-recurring expenditure.

Public Works.

The Public Works Department is under the control of two Chief Engineers who act as Secretaries to the Government one for General Works and the other for Irrigation.

Under them are Superintending Engineers in charge of divisions and Executive Engineers in charge of districts, with the Consulting Architect. The chief irrigation works are in Sind and consist of a chain of canals fed by the annual inundations from the Indus and one perennial canal the Jamroo. In the Presidency proper the principal protective works are the Nera Canal, Gokak Canal, Mutha Canal and the Godavari Canal Scheme. In addition there is under construction a chain of protective irrigation works originating in reservoirs in the Ghat regions. The first of these the Godavari Scheme is now in operation the Pravara Scheme and the Nira Scheme have recently been sanctioned. The Public Works budget for the current year is 80 lakhs of rupees.

Police

The Police Force is divided into three categories: District Police, Railway Police and the Bombay City Police. The District Police are under the Inspector-General who is either a member of the Gazetted Force or a Commissioned Civilian. Under him are the Deputy Inspector-Generals for Sind and the Northern and Southern Ranges of the Presidency proper for Railways and for Criminal Investigation. District Superintendents of Police have charge of each District with a regular cadre comprising Assistant Superintendents, Sub-Inspectors, Chief Constables and Constables. The Bombay City Police is a separate force maintained by Government under a Commissioner who is responsible direct to Government. The Training School at Asak prepares young gazetted officers and the rank and file for their duties. The cost of the Police is 11½ lakhs.

Education

Education is imparted partly through direct Government agency partly through the medium of grants-in-aid. Government maintain Arts Colleges at Bombay, Poona and Gujarat, the Grant Medical College, the Poona College of Science, the Agricultural College, Veterinary College, School of Art, Law School and a College of Commerce. A Science College in Bombay is now in course of construction. Also in Bombay City and the headquarters of each district a model secondary school. The other secondary schools are in private hands, the majority of the primary schools are maintained by District and Local Boards with a grant-in-aid. The Bombay Municipality is responsible for primary education in Bombay City. There are now in the Presidency 10 Arts Colleges, 173 High Schools, 14,661 Primary schools, with 1,089,017 scholars. The Government Educational Budget is 76 lakhs.

The Educational Department is administered by a Director, with an Inspector in each Division and a Deputy Inspector with Assistants in each district. Higher education is controlled by the Bombay University (established in 1857) consisting of the Chancellor (the Governor of the Presidency), the Vice-Chancellor (appointed by Government for two years), and 110 Fellows of whom 10 are ex-officio, 10 elected by the Graduates, 10 by the Faculties, and 80 are nominated by the Chancellor.

The principal educational institutions are. —

Government Arts Colleges—

Elphinstone College, Bombay Principal Wilkinson
Deccan College Poona Principal Mr H G Rawlinson
Gujarat College Ahmedabad, Principal¹ Rev W G Robertson.

Private Arts Colleges—

St Xavier's, Bombay (Society of Jesus) Principal Rev Father Goodyear
Wilson College Bombay (Scottish Mission) Principal Rev Dr Mackichan.
Ferguson College Poona (Deccan Educational Society) Principal the Hon^{ble} Mr. R. P. Paranjape.
Baroda College Baroda (Baroda State) Principal Mr Clarke.
Samaldas College, Bhavnagar (Bhavnagar State) Principal Mr Unwalla.
Bahauddinhal College Junagadh State, Principal Mr Scott.

Special Colleges—

Grant Medical College, Bombay (Government) Principal Lt Col. Street, I.M.S.
College of Science, Poona (Government), Principal Dr. Allen.
Agricultural College Poona (Government) Principal Dr. Harold Mann.
Chief College, Rajkot Principal Mr. Mayne.
College of Science, Ahmedabad.
Law School Bombay Principal Miss Ali Akbar Khan.
College of Commerce, Bombay Principal, Mr P. Anstey.
Veterinary College Bombay Mr K. Hewlett.
Bombay Bacteriological Laboratory Director Major Liston I.M.S.
Sir J. J. School of Art, Bombay (Government) Principal Mr Cecil Burns.
Victoria Technical Institute, Bombay, Principal Mr T. Dawson.

Medical.

The Medical Department is in charge of the Surgeon-General and Sanitation of the Sanitary Commissioner both members of the Indian Medical Service. Civil Surgeons stationed at each district headquarters are responsible for the medical work of the district, whilst sanitation is entrusted to one of the Deputy Sanitary Commissioners. Three large hospitals are maintained by the Government in Bombay and well-equipped hospitals exist in all important up-country stations. Over four million persons including 67,000 in-patients are treated annually. The Presidency contains 7 Lunatic Asylums and 18 institutions for the treatment of Lepers. Vaccination is carried out by a staff under the direction of the Sanitary Commissioner. Sanitary work has received an immense stimulus from the large grants made by the Government of India out of the opium surpluses.

Governor and President in Council.

His Excellency The Right Hon^{ble} Freeman Freeman Thomas Baron Wellington of Bolton S.C.I.M. Took his seat 5th April 1913.

Personal Staff

J. C. Carr, I.C.S. J. P. Private Secretary
Major J. G. Greig, C.I.M., 121st Pioneer, M.H. Military Secretary

Captain Rigby B.A.M.C., Surgeon to H.E. the Governor

Capt. K. O. Goldie 10th Duke of Cambridge's Own Lancers (Hodson's Horse) Aide de Camp.

Captain J. C. R. Gannon 23rd Cavalry Extra Aide-de-Camp

Capt. K. O. Goldie 10th Lancers Officiating Commandant, H.E. the Governor's Body Guard

Subedar Major Sher Muhammad Khan 121st Pioneer Indian Aide de Camp

Members of Council

Mr W. D. Sheppard C.I.E. I.C.S.

Mr George Carmichael C.S.I. I.C.S.

Mr Mahadev Bhaskar Chaudhary C.S.I. B.A. LL.B.

Additional Members of Council.

Elected

Moulvie Hafuddin Ahmad Bar at Law Elected by the Muhammadan Community of the Central Division

Mr D. V. Belvi, B.A. LL.B. Elected by the Municipalities of the Southern Division

Mr G. M. Bhurgul Bar at Law Elected by the Jaghirdars and Zamindars of Sind

Mr Haji Suleiman Abdul Wahed Elected by the Muhammadan Community of the City of Bombay

Sardar Syed Ali El Edroos. Elected by the Muhammadan Community of the Northern Division

Mr K. R. Godbole. Elected by the District Local Boards of the Central Division

Shahji G. H. Hidayatullah LL.B. Elected by the District Local Boards of the Sind Division

Sardar Sir Chinubhai Madhavlal Bart C.I.E. Elected by the Millowners Association of Ahmedabad.

Mr Dinsha Edulji Wacha. Elected by the Municipal Corporation of the City of Bombay

Mr G. K. Parekh, B.A. LL.B. Elected by the Municipalities of the Northern Division

Mr V. J. Patel Bar at Law Elected by the District Local Boards of the Northern Division

Sardar B. A. Sahab Patwardhan, Chief of Kurwad (Senior) Elected by the Sardars of the Deccan

Mr Abdul Hussain Adanji Peerbhoy Elected by the Muhammadan Community of the Southern Division

Sardar Dulabhai Raisingji, Thakor of Kewada Elected by the Sardars of Gujarat.

Mr Manmohandas Basmji. Elected by the Indian Commercial Community

Mr Malcolm N. Hoag. Elected by the Bombay Chamber of Commerce.

Mr Bahadur S. K. Rodda. Elected by the District Local Boards of the Southern Division.

Mr Narayan Madhav Samarth. Elected by the University of Bombay

Mr S. B. Upasani. Elected by the Municipalities of the Central Division

Mr Harchandral Vishandas, B.A. LL.B. Elected by the Municipalities of the Sind Division.

Mr M. De Pomeroy Webb C.I.E. Elected by the Karachi Chamber of Commerce

Nominated

The Advocate-General (ex-officio)

Lt Col James Jackson M.B. I.M.

Mr G. S. Curds

Mr Henry Staveland Lawrence I.C.S.

Dr Dominick Anthony D. Monte

Sir Jamsetjee Jejeebhoy Bart

Mr B. S. Khatat

Mr A. D. Khandalavala LL.B.

Mr J. H. Kothari.

Mr J. A. D. McBain

Mr Lalubhai Samaldas Mehta, C.I.E.

Mr J. P. Orr C.S.I. I.C.S.

Rao Bahadur V. S. Naik

Mr E. F. Nicholson

Rao Bahadur L. M. Vilkanthia LL.B.

Mr R. P. Pranjpe

Sir Ibrahim Rahimtoola Kt. C.I.E.

Rao Bahadur G. K. Sathe

Mr W. H. Sharp

Sir F. L. Sprott.

Surgeon-General R. W. S. Lyons

SECRETARIES TO GOVERNMENT

Political Special and Judicial—L. Robertson I.C.S.

J. E. C. Jukes I.C.S. Dy. Secretary Judicial and Political Department (Temporary)

Revenue Financial and Separate—The Hon. Mr. George S. Ymou Curds C.S.I. I.C.S.

General Educational Marine and Ecclesiastical—P. W. Monie

Legal Department and Remembrancer of Legal Affairs—George Douglas French B.A. I.C.S.

Public Works Department.—H. F. Beale, and R. J. Kent (Joint Secretary)

MISCELLANEOUS APPOINTMENTS (S. C.)

Advocate-General The Hon. Mr. M. R. Jardine

Inspector-General of Police W. L. Berkeley

Souter C.I.E.

Director of Public Instruction The Hon. Mr. W. H. Sharp

Surgeon General The Hon. Surgeon General R. W. S. Lyons I.M.S.

Oriental Translator Muhammad Kadir Shahji

Talukdar Settlement Officer E. G. Gordon I.C.S.

Settlement Commissioner and Director of Land Records C. N. Seldon I.C.S.

Director of Agriculture and Co-operative Societies G. F. Keatinge C.I.E.

Registrar of Co-operative Societies R. B. Ewbank (on deputation)

P. L. Mosey B.A. 108 Acting.	George Dick (<i>Officiating</i>)	1792
Municipal Commissioner Bombay P. B. Cadell	John Griffith (<i>Officiating</i>)	1795
O.L.B.	Jonathan Duncan	1795
Vice-Chancellor Bombay University The Rev Dr Mackichan	Died 11th August 1811	
Registrar Bombay University Fardunji Dastur	George Brown (<i>Officiating</i>)	1811
Commissioner of Police Bombay S. M. Rd	Sir Evan Nepean Bart.	1812
Wardens C.V.O. 109	The Hon Mountstuart Elphinstone	1819
Sansary Commissioner Major F. H. G. Hotkinson	Major General Sir John Malcolm G.C.B.	1827
Accountant-General Montagu Brigtork 109	Lieut. General Sir Thomas Sidney Beck with K.C.B.	1830
Inspector-General of Prisons Lt Col J. Jackson 109	Died 15th January 1851	
Postmaster General E. A. Doran G.I.E.	John Romer (<i>Officiating</i>)	1831
Commissioner of Customs Salt, Opium and Revenue P. B. Arthur	The Earl of Clare	1831
Collector of Customs Bombay Perov Eccles 109	Sir Robert Grant G.C.H.	1835
Consulting Architect G. W. Whitel	Died 9th July 1838	
Consulting Surgeon A. E. Mirams, F.R.C.S.	James Parish (<i>Officiating</i>)	1838
GOVERNORS OF BOMBAY	Sir J. Rivett Carnar. Bart.	1839
Sir Abraham Shipman	Sir William Hay Macnaghten Bart. (b)	
Died on the Island of Anjediva in October 1804	George William Anderson (<i>Officiating</i>)	1841
Humphrey Cooke	Sir George Arthur Bart. K.C.H.	1842
Sir Gervase Lucas	Lestock Robert Ivel (<i>Officiating</i>)	1846
Died 21st May 1807	George Russell Clerk	1847
Captain Henry Garey (<i>Officiating</i>)	Viscount Falkland	1848
Sir George Oxender	Lord Elphinstone G.C.H. P.C.	1853
Died in Surat 14th July 1809	Sir George Russell Clerk K.C.B. (2nd time)	1860
Gerald Aungler	Sir Henry Bartle Edward Freer K.C.B.	1862
Died in Surat 30th June 1877	The Right Hon. William Robert Seymour Vesey FitzGerald.	1867
Thomas Rolt	Sir Philip Edmond Wodehouse K.C.B.	1872
Sir John Child Bart.	Sir Richard Temple Bart. G.C.S.I.	1877
Bartholomew Harris	Lionel Robert Ashburner G.C.L. (<i>Acting</i>)	1880
Died in Surat 10th May 1894	The Right Hon. Sir James Ferguson, Bart. K.C.M.G.	1889
Daniel Annesley (<i>Officiating</i>)	James Brathwaite Pelle G.S.I. (<i>Acting</i>)	1885
Sir John Gayer	Baron Reay	1885
Sir Nicholas Walte	Baron Harris	1890
William Ablett	Herbert Mills Burdwood G.S.I. (<i>Acting</i>)	1895
Stephen Strutt (<i>Officiating</i>)	Baron Sandhurst	1895
Charles Boone	Baron Northcote, G.B.	1906
William Phipps	Sir James Montagu K.C.S.I. (<i>Acting</i>)	1906
Robert Cowan	Baron Lamington G.O.M.G. G.C.I.E.	1907
Dismissed	J. W. P. Muir Mackenzie G.S.I. (<i>Acting</i>)	1907
John Horne	Sir George Sydenham Clarke G.C.M.S., G.C.I.E. (c)	1907
Stephen Law	Baron Willington G.C.I.E.	1913
John Geeble (<i>Officiating</i>)	(a) Proceeded to Madras on duty in Aug. 1792, and then joined the Council of the Governor General as Commander-in-Chief in India on the 26th Oct., 1793	
William Wake	(b) Was appointed Governor of Bombay by the Honourable the Court of Directors on the 4th Aug. 1841 but before he could take charge of his appointment, he was assassinated in Cabul on the 23rd Dec., 1841.	
Richard Bouchier	(c) Afterwards (by creation) Baron Sydenham	
Charles Crommelin		
Thomas Rodges		
Died 23rd February 1771		
William Hornby		
Rawson Hart Boddam		
Rawson Hart Boddam		
Andrew Ramsay (<i>Officiating</i>)		
Major-General William Meadows		
Major-General Sir Robert Abercromby		
K.C.B. (a)		

The Madras Presidency.

The Madras Presidency officially the Presidency of Fort St. George, together with the Native States, occupies the whole southern portion of the peninsula, and, excluding the Native States, has an area of 141,075 square miles. It has on the east, on the Bay of Bengal, a coast-line of about 1,200 miles on the west on the Indian Ocean, a coast-line of about 450 miles. In all this extent of coast, however there is not a single natural harbour of any importance the ports, with the exception of Madras which has an artificial harbour are merely open roadsteads. A plateau, varying in height above sea level from about 1,000 to about 3,000 ft. and stretching northwards from the Nilgiri Hills, occupies the central area of the Presidency on either side are the Eastern and the Western Ghats which meet in the Nilgiris. The height of the western mountain-chain has an important effect on the rainfall. Where the chain is high, the intercepted rain-clouds give a heavy fall which may amount to 150 inches on the seaward side, but comparatively little rain falls on the landward side of the range. Where the chain is low, rain-clouds are not checked in their westward course. In the central tableland and on the east coast the rainfall is small and the heat in summer excessive. The rivers, which flow from west to east in their earlier course drain rather than irrigate the country, but the deltas of the Godavari, Krishna and Cauvery are productive of fair crops even in time of drought and are the only portions of the east coast where agriculture is not dependent on a rainfall rarely exceeding 40 inches and apt to be untimely.

Population.

The population of the Presidency in 1911 was 41,402,000 and that of the Native States was 4,813,000. Hindus account for 89 per cent., Mahomedans for 6, Christians for 3, and Animists for 2. The vast majority of the population is of Dravidian race and the principal Dravidian languages, Tamil and Telugu, are spoken by 15 and 14 million persons, respectively. Of every 1,000 people 407 speak Tamil, 577 speak Telugu, 74 Malayalam, 8 Canarese and 25 Hindustani. It is remarkable that of the 41 millions of population all but quarter of a million belong to it by birth.

Agriculture.

About 68 per cent. of the population is occupied in Agriculture. About 49 per cent. having a direct interest as land-owners or tenants. About 86 per cent. of the cultivated area is under food crops the principal being rice (10.7 million acres) cholera or great millet (5.8 million acres) spoked millet (3.3 million acres) and ragi or millet (2.0 million acres). 24,083 acres are under wheat, 8,079 acres are under barley. About 3.2 million acres are under oil seeds, about 2.7 million acres are under cotton, 26,822 acres are under tea and 42,322 acres are under coffee. Irrigation is unnecessary on the West Coast but on the East about 30.5 per cent. of the cultivated area has provisionally to be irrigated. Irrigation works include 26,966 tanks, 2,164 river channels, 6,114 spring channels, 1,371 canals, 801,650 ayakats wells and 215,786 supplemental wells. The

recent progress of the application of machinery to irrigation on a small scale has been remarkable.

Industries.

Comparative poverty in readily exploitable mineral wealth and the difficulty of coal supply prohibit very large industrial development in the Presidency but excellent work both in reviving decadent industries and testing new ones has been done under Government auspices. The only indigenous art employing a considerable number of workers is weaving. There is no system of regular registration in vogue and the figures given can be regarded only as approximate but returns show a total of 1,281 factories driven by engines of an aggregate H.P. of 53,437. Of these factories 179 are concerned with cotton.

Trade

The grand total of sea-borne trade of the Madras Presidency in 1914-15 was Rs. 58,16,93,000 a decrease of some 16 per cent. owing to war conditions. It would be wished to cite the years figures in detail since they were abnormal the average for the 5 years ending 1910-11 was Rs. 4,01,10,000. The following items in the 1914-15 returns may be mentioned—Exports decreased by 16 per cent. in Indian produce and by 26 per cent. in foreign goods re-exported. Imports decreased by 23 per cent. under the heading merchandise. In the last normal year about 63 per cent. of the trade of the Presidency was with the British Empire and about 4.2 per cent. with the United Kingdom. The port of Madras accounted for 41 per cent. of the whole sea-borne trade of the Presidency.

Education.

The illiterate population numbers 3,30,000 in every 1,000, 138 men and 13 women can read and write. Of every 1,000 persons 6 are literate in English but the total number of women literate in English is only 4,000. There were in 1913-14, twenty-nine Arts Colleges, five Oriental Colleges, three Professional Colleges, 364 Secondary Schools and 26,018 Elementary Schools for males for females there were two Arts Colleges, 69 Secondary Schools and 1,443 Elementary Schools. In addition to these, all of which were public institutions there were 368 advanced and 4,222 elementary private institutions for male scholars and 122 for females. The total number of scholars in educational institutions of all kinds was 1,499,945 including 7,064 students in Arts and Oriental Colleges, 958 in Professional Colleges, 128,167 in Secondary Schools and 1,200,249 in Elementary schools. The Madras University produces each year about 500 graduates in Arts.

Government.

The Madras Presidency is governed on a system generally similar to that obtaining in Bombay and Bengal. At the head is the Governor usually selected from the ranks of British public men or of ex-Governors of Colonies with the Governor is associated an Executive Council of three members, two of

whom must have served for ten years under the Crown in India while the third, of whose official experience is not required, is in practice, but not of necessity an Indian. Madras administration differs, however in some important respects from that of other major Provinces. There is no intermediate local authority between the Collector of the District and the authorities at headquarters, the Commissioner being unknown in Madras. Part of the power which would be reserved elsewhere for the Commissioner is given to the Collector whose status is rather higher in Madras than elsewhere, and part is exercised by the Board of Revenue. Each member of the Board of Revenue is in fact a Commissioner for specific subjects throughout the Presidency. This conduces to administration by specialists and to the maintenance of equal progress in specific matters in every part of the Presidency, but it leaves the Government without an official who can judge of the general administration of large parts of the country. For these and other reasons the Decentralisation Commission recommended that a system of Commissionerships be introduced in Madras.

Finance

According to the revised estimates for 1914 to the Presidency's financial position was as follows in lakhs of rupees—Opening balance Rs 176.60 receipts Rs 754.62 expenditure Rs 822.14 the deficit being considerably larger than anticipated. The effects of the war on trade were clearly seen. Thus cotton fell by September 1914 to Rs 68 per candy whereas in September 1912 it was selling at Rs 108 per candy. So with other Madras products.

Governor and President in Council

H. L. Venkayya the Rt Hon. Baron Portland
C. I. C. P. C. Took his seat 30th October 1912

Personal Staff

Private Secy. C. B. Cottrell
Military Secy. Capt. Wilgram Seymour Elliott
Honorary Aide-de-Camp Commander W. B. Huddleston R. L. M. and Major H. H. Gordon Mitchell

Extra Aide-de-Camp Capt. T. A. Thornton
Indian Aide-de-Camp, Risaldar Major Malik Shier Bahadur

Surgeon Major Frederick Funn M.D. C.B. C.S.

Commandant of Body Guard Capt. George H. Morris B.E.

Members of Council

Mrs. P. S. Aiyar Sivaswami Aiyar C.B. C.S.

Mrs. H. A. Stuart, M.C. C.S.

Mrs. A. G. Cardew C.B. C.S.

Additional Members of Council Elected.

Dr. T. M. Nair

Rev. G. Pittendrigh.

J. N. Sarna.

M. Ramachandra Rao Pantulu

V. Subba Krishna Rao Pantulu

Pattabhi Krishna Pillai.

A. Subbarayana Reddiyar

B. V. Aiyar Narasimha Aiyar

K. P. Raman Menon

V. K. Aiyangar Ramanujachariyar

Krishnaswami Bama Aiyangar

K. R. Venkata Krishna Rao Pantulu

Diwan Bahadur Venkata-swami Ramabhadra

Nayudu Garu

C. V. Surya Narasimha Raju.

K. Chidambaramatha Mudaliyar

K. K. Raman Kavalappara Muppli Nayar

T. Jain ul abiden Salih Shifa ul Mulk

Ahmed Tambi Ghulam Muhiuddin Marakkar

J. O. Robinson

Sir Hugh Stein Fraser

L. F. Darber

Nominated

F. J. M. Corbett

A. S. Brodie

J. Davidson C.S.

L. E. Buckle

J. H. Stone

H. L. Clegg

S. B. Murray

Colonel William Montague Ellis R.E.

A. Butterworth.

Surg.-Gen. W. B. Bannerman C.B. M.D. F.R.S.

James Perch Bedford

H. F. W. Gillman

C. R. M. Schmidt

Diwan Bahadur J. D. Swamikanth Pillai

Haji Ismael Salt, Khan Bahadur

T. Richmond.

Sir F. J. E. Spring, K.C.L.E.

P. Somasundara Chettiyar

V. S. Krishna Rao

A. Mulhrad C.I.E.

Raja Sri M. M. Sankha Datta Garu

Charles George Lodhunter

SECRETARIES TO GOVERNMENT

Chief Secretary to Government, A. Butterworth C.S.

Revenue L. Davidson C.B. C.S.

Local and Municipal, Education and Legals (Mr. James Perch Bedford)

Public Works (General), Col. W. M. Ellis R.E.

Joint Secretary S. B. Murray

BOARD OF REVENUE

First Member R. B. Clegg

Second Member R. C. C. (Ret. C.S.)

Third Member M. S. Frodip M.A.

Fourth Member L. E. Buckley

MISCELLANEOUS APPOINTMENTS

Commissioner of Revenue Settlement, etc. L. E. Buckley C.S.

Revenue Survey Department. Director D. G. Hatchell

Director of Public Instruction J. H. Stone C.I.E. (Ag.)

Vice-Chancellor of Madras University—Justice Sir John Wallis.

Registrar of Madras University, F. Dewsbury

<i>Inspector-General of Police</i> , P. L. Moore C.I.E.		<i>Major-General William Meadows</i>	1790
<i>Surgeon-General</i> , Surgeon-General W. B. Bannerman, C.S.I.		<i>Sir Charles Oakeley Bart</i>	1792
<i>Accountant-General</i> Krishna Lal Ditta M. A.		<i>Lord Hobart</i>	1794
<i>Inspector-General of Prisons</i> Lt-Col R. J. Macnamara I.M.S.		<i>Major-General George Harris (Acting)</i>	1795
<i>Postmaster-General</i> H. C. Sheridan.		<i>Lord Clive</i>	1799
<i>Collector of Customs</i> J. J. Cotton I.C.S.		<i>Lord William Cavendish Bentinck</i>	1803
<i>Commissioner of Salt</i> Akbari etc. A. S. Brodie.		<i>William Petrie (Acting)</i>	1807
<i>Inspector General of Registration</i> C. R. M. Schmidt.		<i>Sir George Hilary Barlow Bart., K.B.</i>	1807
<i>President, Madras Corporation</i> P. L. Moore, C.I.E.		<i>Lieut.-General the Hon. John Abercromby</i>	1812
<i>Director of the Kodakshani and Madras Observatories</i> , J. Evershed.		<i>The Right Hon. Hugh Elliot</i>	1814
<i>Supt., Govt. Central Museum, and Principal Librarian</i> Connemara Public Library J. R. Henderson		<i>Major-General Sir Thomas Munro Bart. K.C.B.</i>	1820
<i>Placicultural Expert</i> , H. C. Wilson		<i>Died 6 July 1827</i>	
<i>Persian and Hindustani Translator to Government</i> , Major A. R. Nethersole I.A.		<i>Henry Sullivan Groom (Acting)</i>	1827
<i>Registrar of Co-operative Credit Societies</i> L. D. Swamikannu Pillai, Diwan Bahadur		<i>Stephen Rumbold Lushington</i>	1827
<i>Scientific Officer for Planting Industries of S. India</i> R. D. Anstead.		<i>Lieut. General Sir Frederick Adam, K.C.B.</i>	1832
<i>Consulting Architect</i> W. H. Nicholls		<i>George Edward Russell (Acting)</i>	1837
Presidents and Governors of Fort St. George in Madras		<i>Lord Eglinton G.C.B. P.C.</i>	1837
<i>William Gifford</i>	1694	<i>Lieut.-General the Marquess of Tweeddale, K.T. C.B.</i>	1842
<i>Elihu Yale</i>	1687	<i>Henry Dickinson (Acting)</i>	1848
<i>Nathaniel Higginson</i>	1692	<i>Major-General the Right Hon. Sir Henry Pottinger Bart. G.C.B.</i>	1848
<i>Thomas Pitt</i>	1698	<i>Daniel Elliott (Acting)</i>	1854
<i>Gulston Addison</i>	1709	<i>Lord Harris</i>	1854
<i>Died at Madras, 17 Oct. 1709</i>		<i>Sir Charles Edward Trevelyan K.C.B.</i>	1859
<i>Edmund Montague (Acting)</i>	1709	<i>William Ambrose Morehead (Acting)</i>	1860
<i>William Fraser (Acting)</i>	1708	<i>Sir Henry George Ward, G.C.M.G.</i>	1860
<i>Edward Harrison</i>	1710	<i>Died at Madras 2 August 1860</i>	
<i>Joseph Collet</i>	1711	<i>William Ambrose Morehead, (Acting)</i>	1860
<i>Francis Hastings (Acting)</i>	1727	<i>Sir William Thomas Denison K.C.B.</i>	1861
<i>Nathaniel Elwick</i>	1727	<i>Acting Viceroy 1863 to 1864</i>	
<i>James Macrae</i>	1726	<i>Edward Maltby (Acting)</i>	1863
<i>George Morton Pitt</i>	1730	<i>Lord Napier of Merchistoun K.T. (Acting)</i>	1866
<i>Richard Benyon</i>	1735	<i>Acting Viceroy</i>	
<i>Nicholas Morse</i>	1744	<i>Alexander John Arbuthnot C.S.I. (Acting)</i>	1871
<i>John Hinde</i>		<i>Lord Hobart</i>	1872
<i>Charles Floyer</i>	1747	<i>Died at Madras, 27 April, 1871</i>	
<i>Thomas Saunders</i>	1750	<i>William Rose Robinson C.S.I. (Acting)</i>	1875
<i>George Pigot</i>	1755	<i>The Duke of Buckingham and Chandos</i>	1875
<i>Robert Palk</i>	1763	<i>The Right Hon. W. P. Adam</i>	1880
<i>Charles Bouchier</i>	1767	<i>Died at Ootacamund 24 May 1881</i>	
<i>Joel duPre</i>	1770	<i>William Hudson (Acting)</i>	1881
<i>Alexander Wynch</i>	1772	<i>The Right Hon. M. E. Grant Duff</i>	1881
<i>Lord Pigot (Suspended)</i>	1776	<i>The Right Hon. Robert Bourke, P.C.</i>	1886
<i>George Stratton</i>	1776	<i>Lord Connemara, 12 May 1887 (by creation)</i>	
<i>John Whitehill (Acting)</i>	1777	<i>John Henry Garstin C.S.I. (Acting)</i>	1890
<i>Sir Thomas Rumbold Bart.</i>	1774	<i>Baron Wenlock</i>	1890
<i>John Whitehill (Acting)</i>	1780	<i>Sir Arthur Milbank Havelock G.C.M.G.</i>	1891
<i>Charles Smith (Acting)</i>	1780	<i>Baron Ampthill</i>	1891
<i>Lord Macartney K.B.</i>	1781	<i>Acting Viceroy and Governor General 1804</i>	
Governors of Madras		<i>James Thomson C.S.I. (Acting)</i>	1904
<i>Lord Macartney K.B.</i>	1785	<i>Gabriel Stokes C.S.I. (Acting)</i>	1906
<i>Alexander Davidson (Acting)</i>	1785	<i>Hon. Sir Arthur Lawley K.C.M.G. G.C.I.</i>	1907
<i>Major-General Sir Alexander Campbell, K.B.</i>	1786	<i>Sir Thomas David Gibson-Carmichael Bart., K.C.M.G. G.C.I.E. (b)</i>	1911
<i>John Holloand (Acting)</i>	1789	<i>Became Governor of Bengal, 1 April 1911</i>	
<i>Edward J. Holloand (Acting)</i>	1790	<i>Sir Murray Hambrick K.C.S.I. C.I.E. (Acting)</i>	1912
		<i>Right Hon. Baron Pentland P.C. C.I.E.</i>	1911
		<i>(a) Afterwards (by creation) Baron Napier of Ettrick.</i>	
		<i>(b) Afterwards (by creation) Baron Carmichael of Skirling.</i>	

The Bengal Presidency

The Presidency of Bengal, as constituted on the 1st April 1912, comprises the Burdwan and Presidency divisions and the district of Darjeeling which were formerly administered by the Lieutenant-Governor of Bengal and the Rajshahi, Dacca and Chittagong divisions which by the partition of the old Province had been placed under the administration of the Lieutenant-Governor of Eastern Bengal and Assam. The area of the Presidency is 84,002 square miles and it possesses a population of 46,305,642 persons included within this area are the two Native States of Cooch Behar and Hill Tippera which are under the general supervision of the Government of Bengal. The area of the British territory is 8,099 square miles. Bengal comprises the lower valleys and deltas of the Ganges and Brahmaputra and in the main consists of a great alluvial plain intersected in its southern portion by innumerable waterways. In the north are the Himalayan mountain and submontane tracts of Darjeeling and Jalpaiguri and on the south-east the hills in Hill Tippera and Chittagong while on the west the Chota Nagpur plateau is continued by an undulating tract running through the western portions of Miniaur, Bankura, Burdwan and Birbhum. The central range of the country however is very low and a great fertile plain extends southward from Jalpaiguri to the forests and swamps known as the Sunderbans which lie between the area of cultivation and the Bay of Bengal.

The People.

Of the inhabitants of the Presidency 4,237,288 or 52.4 per cent are Mahomedans and 20,940,378 Hindus. These two major religions embrace all but 2.4 per cent of the population. Christians, Buddhists and Animists combined number a little over 1,100,000.

Bengali is spoken by ninety two per cent of the population of the Presidency and Hindi and Urdu by four per cent. The Orissa speaking people number nearly 300,000 and 'Khasi' is the tongue of 80,000 persons principally resident in the Darjeeling and Jalpaiguri districts. The great majority of the speakers of the Mundas languages are Santals in West and North Bengal.

Industries

According to the returns of the Census of 1911 nearly 3½ million persons or three fourths of the population derive their support from pasture and agriculture, and of these 30 millions are cultivators, and 3½ millions farm servants and field labourers. The area under jute in 1915 is estimated at 2,086,200 against 2,872,004 in 1914. In some parts of Eastern Bengal this area was considerably damaged by floods. Bengal is the most important rice-producing area in Northern India and it is computed that 94 per cent of the cultivated area of the Presidency is devoted to its production. Other crops include barley, wheat, pulses and oil seeds, the area devoted to the last named being over 2 million acres. Sugar is produced both from the sugar-cane and from the date palm and tobacco is grown for local consumption in nearly every district of Bengal. The area under tea in 1914-15 was 159,954 acres. There were 287 plantations employing a daily average of 100,000 permanent and 29,840 temporary hands.

Manufactures and Trade.

The jute mills of Calcutta constitute the principal manufacturing industry of the Presidency. During 1914-15 sixty-seven working mills employed daily on an average 256,294 persons. The war closed a large central market for the raw material but the Calcutta mills have done very well sustained as they were by a plentiful supply of cheap material. The net profits earned by them amounted to Rs. 1,02 crores as compared with Rs. 2.68 crores in 1913-14. The nominal rupee capital employed was Rs. 8.57 crores of which Rs. 7.95 was paid up capital. Up to the declaration of war the volume of the trade in jute exports was large and the aggregate value rose to Rs. 12.9 crores an increase of 11.12 per cent. The total value for the year however fell by 83 per cent. In particular exports of raw jute declined in value by over 57 per cent, the lowest since 1904-05. The net collection realised from the Jute Loan for the Calcutta Improvement Trust amounted to Rs. 7.90 lakhs in 1914 and Rs. 31 lakhs for the first three months of 1915. The jute trade represented 52.87 per cent of the total value of the exports of merchandise from Calcutta. Other principal industries are cotton textile and yarn, silk yarn and cloth, hand made loth, sugar molasses and paper. Fifty-six cotton mills were at work during 1914-15 employing daily on an average 10,819 persons. The silk weaving industry is in a declining state. There was only one silk factory working during 1914-15 which employed 78 hands. The manufacture of tea is carried on an extensive scale in Darjeeling and Jalpaiguri. In 1914-15 the maritime trade of Bengal reached a total of Rs. 161.36 crores. The foreign trade amounted to Rs. 158.08 crores the lowest since 1909-10 of which Rs. 12.06 crores represented imports and Rs. 75.39 crores exports. 90.88 per cent of the foreign trade passed through the Port of Calcutta and the rest through Chittagong. With the readjustment of the boundaries of Bengal and the creation of a new Province of Bihar and Orissa in 1912, the more important coal fields have passed into the new Province. The number of coal mines worked in 1914-15 was 174. The total output was 4,44,640 tons against 4,64,957 tons raised in 1913-14. The decrease was due to a falling off in the demand for industrial purposes owing to the war. The daily average of persons employed in the mines was 32,879 and there was a notable advance in the use of electricity. Three paper mills produced paper valued at over Rs. 18 lakhs.

Administration.

The present form of Government dates from the 1st of April 1912 when the administrative changes announced by the King Emperor at Delhi in December 1911 came into operation. A Governor was then substituted for a Lieutenant-Governor who had previously been at the head of the Province and Lord Carmichael of Skirling assumed charge of the office. The Governor is assisted by an Executive Council, two of whom are at present members of the Indian Civil Service and the third an Indian.

<i>Inspector-General of Police</i> P L Moore C.I.E.	1790
<i>L.C.S.</i>	1792
<i>Surgeon-General, Surgeon General</i> W B Bannerman, C.S.I.	1794
<i>Accountant-General</i> Krishna Lal Datta M.A.	1798
<i>Inspector-General of Prisons</i> , Lt-Col. R. J Macnamara I.M.S.	1799
<i>Postmaster-General</i> , H. C. Sheridan.	1803
<i>Collector of Customs</i> J J Cotton I.C.S.	1807
<i>Commissioner of Salt, Akbari etc</i> N S Brodie.	1807
<i>Inspector-General of Registration</i> , C R M. Schmidt.	1813
<i>President, Madras Corporation</i> P L Moore, C.I.E.	1814
<i>Director of the Kodukanal and Madras Observeries</i> , J Evered.	1820
<i>Supt., Govt. Central Museum, and Principal Librarian</i> Connemara Public Library J B. Henderson.	1827
<i>Pictorial Expert</i> , H. C. Wilson.	1827
<i>Persian and Hindustani Translator to Government</i> Major A B. Nethersole I.A.	1832
<i>Registrar of Co-operative Credit Societies</i> L. D. Swamikannu Pillai Diwan Bahadur.	1837
<i>Scientific Officer for Planting Industries of S India</i> R. D. Anstead.	1837
<i>Consulting Architect</i> W H. Nicholls.	1842
Presidents and Governors of Fort St George in Madras	
William Gifford	1694
Ellihu Yale	1697
Nathaniel Higginson	1692
Thomas Pitt	1698
Gulston Addison	1709
Died at Madras 17 Oct 1709	
Edmund Montague (<i>Acting</i>)	1709
William Fraser (<i>Acting</i>)	1709
Edward Harrison	1710
Joseph Collet	1711
Francis Hastings (<i>Acting</i>)	1727
Nathaniel Eliwick	1727
James Macrae	1725
George Morton Pitt	1730
Richard Benyon	1740
Nicholas Morse	1744
John Hinde	1747
Charles Floyer	1750
Thomas Saunders	1750
George Pigot	1755
Robert Palk	1763
Charles Bonnier	1767
Josias DuPre	1770
Alexander Wynch	1773
Lord Pigot (<i>Suspended</i>)	1775
George Stratton	1776
John Whitehill (<i>Acting</i>)	1777
Sir Thomas Bumbold, Bart	1778
John Whitehill (<i>Acting</i>)	1780
Charles Smith (<i>Acting</i>)	1780
Lord Macartney K.B.	1781
Governors of Madras	
Lord Macartney K.B.	1785
Alexander Davidson (<i>Acting</i>)	1785
Major-General Sir Arnold Campbell K.B.	1786
John Holland (<i>Acting</i>)	1789
Edward J. Holland (<i>Acting</i>)	1790
Major-General William Medows	1790
Sir Charles Oakeley Bart.	1792
Lord Hobart	1794
Major-General George Harris (<i>Acting</i>)	1798
Lord Clive	1799
Lord William Cavendish Bentinck	1803
William Petrie (<i>Acting</i>)	1807
Sir George Hilary Barlow Bart. K.B.	1807
Lieut.-General the Hon. John Abercromby	1813
The Right Hon. Hugh Elliot	1814
Major-General Sir Thomas Munro Bart. K.C.B.	1820
Died 6 July, 1827	
Henry Sullivan Graeme (<i>Acting</i>)	1827
Stephen Rumbold Lushington	1827
Lieut.-General Sir Frederick Adam K.C.B.	1832
George Edward Russell (<i>Acting</i>)	1837
Lord Eglinton, G.C.B. & C.	1837
Lieut.-General the Marquess of Tweeddale K.T. & C.	1842
Henry Dickinson (<i>Acting</i>)	1848
Major-General the Right Hon. Sir Henry Lottinger Bart. G.C.B.	1848
Daniel Elliott (<i>Acting</i>)	1854
Lord Harris	1854
Sir Charles Edward Trevelyan K.C.B.	1859
William Ambrose Morehead (<i>Acting</i>)	1860
Sir Henry George Ward, G.C.M.G.	1860
Died at Madras 2 August 1860	
William Ambrose Morehead, (<i>Acting</i>)	1860
Sir William Thomas Denison, K.C.B.	1861
Acting Viceroy 1863 to 1864	
Edward Maitby (<i>Acting</i>)	1863
Lord Napier of Merchiston K.T. (a)	1866
Acting Viceroy	
Alexander John Arbuthnot, C.S.I. (<i>Acting</i>)	1872
Lord Hobart	1872
Died at Madras 27 April, 1875	
William Rose Robinson C.S.I. (<i>Acting</i>)	1875
The Duke of Buckingham and Chandos	1875
The Right Hon. W. P. Adam	1880
Died at Ootacamund, 24 May 1881	
William Hindleston (<i>Acting</i>)	1881
The Right Hon. M. E. Grant Duff	1881
The Right Hon. Robert Bourke P.C.	1886
Lord Connemara, 12 May 1887 (by creation)	
John Henry Garstin C.S.I. (<i>Acting</i>)	1889
Baron Wenlock	1889
Sir Arthur Ellbank Havelock G.C.M.G.	1890
Baron Amptill	1890
Acting Viceroy and Governor General 1904	
James Thomson C.S.I. (<i>Acting</i>)	1904
Gabriel Stokes C.S.I. (<i>Acting</i>)	1906
Hon. Sir Arthur Lawley K.C.M.G. & C.I.E.	1906
Sir Thomas David Gibson Carmichael, Bart. K.C.M.G. & C.I.E. (b)	1911
Became Governor of Bengal, 1 April, 1911.	
Sir Murray Hamrick K.C.S.I. & L.D. (<i>Acting</i>)	1914
Right Hon. Baron Pentland P.C. & C.I.E. (a) Afterwards (by creation) Baron Napier of Ettrick.	1912
(b) Afterwards (by creation) Baron Carmichael of Skirling.	

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According to the returns of the Census of 1911 nearly 35½ million persons or three-fourths of the population derive their support from pasture and agriculture and of these 30 millions are cultivators and 3½ millions farm servants and field labourers. The area under jute in 1915 is estimated at 2,082,200 against 2,872,604 in 1914. In some parts of Eastern Bengal this fibre was considerably damaged by floods. Bengal is the most important rice-producing area in Northern India and it is computed that 54 per cent of the cultivated area of the Presidency is devoted to its production. Other crops include barley, wheat, pulses and oil seeds the area devoted to the last named being over 2 million acres. Sugar is produced both from the sugar-cane and from the date palm and tobacco is grown for local consumption in nearly every district of Bengal. The area under tea in 1914-15 was 159,054 acres. There were 297 plantations employing a daily average of 100,598 permanent and 20,840 temporary hands.

Manufactures and Trade

The jute mills of Calcutta constitute the principal manufacturing industry of the Presidency. During 1914-15 sixty-seven working mills employed daily on an average 226,295 persons. The war closed a large central market for the raw material but the Calcutta mills have done very well, sustained as they were by a plentiful supply of cheap material. The net profits earned by them amounted to Rs. 1,02 crores as compared with Rs. 2.68 crores in 1913-14. The nominal rupee capital employed was Rs. 8.7 crores of which Rs. 7.98 was paid up capital. Up to the declaration of war the volume of the trade in jute exports was large and the aggregate value rose to Rs. 12.97 crores an increase of 11.12 per cent. The total value for the year however fell by 33 per cent. In particular exports of raw jute declined in value by over 57 per cent the lowest since 1904-05. The net collection realised from the Jute cess for the Calcutta Improvement Trust amounted to Rs. 7,00 lakhs in 1914 and Rs. 81 lakhs for the first three months of 1915. The jute trade represented 52.87 per cent of the total value of the exports of merchandise from Calcutta. Other principal industries are jute twine and yarn, silk yarn and cloth, hand made loth, sugar, molasses and paper. Fifty cotton mills were at work during 1914-15 employing daily on an average 10,349 persons. The silk weaving industry is in a declining state. There was only one silk factory working during 1914-15 which employed 3 hands. The manufacture of tea is carried on an extensive scale in Darjeeling and Jalpaiguri. In 1914-15 the maritime trade of Bengal reached a total of Rs. 161.90 crores. The foreign trade amounted to Rs. 128.06 crores the lowest since 1900-01 of which Rs. 12.66 crores represented imports and Rs. 75.39 crores exports. 98.48 per cent of the foreign trade passed through the Port of Calcutta and the rest through Chittagong. With the readjustment of the boundaries of Bengal and the creation of a new Province of Bihar and Orissa in 1912 the more important coal fields have passed into the new Province. The number of coal mines worked in 1914-15 was 178. The total output was 4,23,340 tons against 4,69,625 tons raised in 1913-14. The decrease was due to a falling off in the demand for industrial purposes owing to the war. The daily average of persons employed in the mines was 8,679 and there was a notable advance in the use of electricity. Three paper mills produced paper valued at over Rs. 65 lakhs.

Administration.

The present form of Government dates from the 1st of April 1912 when the administrative changes announced by the King-Emperor at Delhi in December 1911 came into operation. A Governor was then substituted for a Lieutenant-Governor who had previously been at the head of the Province and Lord Carmichael of Skirling assumed charge of the office. The Governor is assisted by an Executive Council, two of whom are at present members of the Indian Civil Service and the third an Indian.

Civil Secretariat consists of the Chief Secretary, who is in charge of the Political Appointments and Judicial Departments, the Revenue Secretary, the Financial Secretary who also deals with Commercial questions, the General Secretary who deals with questions of Local Self Government and Education and the Legislative Secretary four Under-Secretaries and one Assistant Secretary. The Government divides its time between Calcutta Darjeeling and Dacca.

Bengal is administered by five Commissioners under the Governor in Council, the divisions being those of the Presidency Burdwan Rajshahi Dacca and Chittagong. The unit of administration is the District Magistrate and Collector. As Collector he supervises the gathering of the revenue and is the head of all the Departments connected with it, while as District Magistrate he is responsible for the administration of Criminal Justice in the district. The immediate superior of the District Magistrate is the Divisional Commissioner. Commissioners are the channels of communication between the local officers and the Government. In certain revenue matters they are, in their turn, subject to the Board of Revenue in Calcutta. In other matters they are under the direct control of Government.

Justice

The administration of Justice is entrusted to the High Court of Calcutta which consists of the Chief Justice who is a barrister and 18 puisne judges who are barristers, civilians or vakils. Below the High Court are the District and Additional Judges, the Small Cause Court and Subordinate Judges and the Munsifs. Of these officers the District and Additional Judges and a certain number of subordinate judges are also endowed with the power of a Criminal Court while the remainder have jurisdiction in Civil matters only. Criminal Justice is administered by the High Court, the Courts of Session and the courts of the various classes of magistrates. On its appellate side the High Court disposes of appeals from the order of a Court of Session and it also confirms, modifies or annuls sentences of death passed by Sessions Courts. Calcutta has four Presidency Magistrates, one Municipal Magistrate and also a number of Honorary Magistrates and it possesses a Court of Small Causes with six judges who dispose of cases of the class that are usually heard in County Courts in England.

Local Government.

By the Bengal Act of 1884 which regulates municipal bodies in the interior and its subsequent amendments the powers of Commissioners of municipalities have been increased, and the elective franchise has been extended, and the elective franchise has been extended. Municipal expenditure now comprises a large number of objects, including veterinary institutions and the training and employment of female medical practitioners. The Commissioners also have large powers in regard to the water-supply and the regulation of buildings. In Calcutta Act (III) of 1899 created three co-ordinate municipal authorities, the Corporation, the General Committee and the Chairman. The total number of Commissioners is fifty, of whom 25 are elected, and the remainder appointed by Government and by commercial bodies. In order to improve the sanitary and congested

areas of the city the Calcutta Improvement Trust has been created with extensive powers. In the mofussil, District and Local Boards exercise considerable powers, with regard to Public Works, Education and Medical relief and Union Committees have been formed which deal for the most part with the control of village roads, sanitation and water-supply.

Finance.

As in other Provinces, the revenue is divided between the Local Government and the Government of India. The Budget for 1915-16 showed an opening balance of Rs. 2.81 crores estimated revenue amounted to Rs. 6.18 crores and expenditure aggregated Rs. 6.58 crores. Of the closing balance of Rs. 241 lakhs Rs. 220 lakhs was earmarked for various objects.

Public Works.

The Public Works Department is at present under the charge of a Chief Engineer and a temporary Chief Engineer whose appointment has been sanctioned for five years. The redistribution of territories on 1st April 1912 caused considerable changes in this Department and almost all the irrigation works in the old province of Bengal as well as two out of the three Canal Revenue Divisions went to the new Province of Bihar and Orissa. There was also a considerable reduction in the staff and in the number of Public Works Circles and Divisions. Public buildings are erected by the Department which also constructs roads and carries out miscellaneous improvements. Irrigation works in Bengal are under the charge of the Irrigation Department which deals with the numerous waterways that intersect the Province.

Police.

The Bengal Police force comprises the Military Police, the District Police, the Railway Police, and the River Police. The District Police are under the control of the Inspector-General of Police who is usually a Covenanted Civilian, although the office is open to gazetted members of the Force. Under him are Deputy Inspectors-General for the Dacca Range, the Rajshahi range, the Presidency range, and the new Burdwan range and also a Deputy Inspector-General in charge of the C.I.D., the Railway and River Police. Each district is in charge of a Superintendent, and several of the more important districts have an Additional Superintendent. The cadre comprises Assistant Superintendents, Deputy Superintendents, Inspectors, Sub-Inspectors, head constables and constables. There is also a Village Police composed of dafadars, and chowkidars who receive a monthly salary which is collected from the villages by the Panchayat. The Calcutta City Police is a separate force maintained by Government under a Commissioner who is responsible direct to Government. The Commissioner has under him Deputy Commissioners, Inspectors, Sub-Inspectors, head constables and constables, and a reserve force of about 100 European sergeants. A school for the training of recruits for the Calcutta Police force has recently been established at Calcutta. There is a training college and school at Sarda, in the district of Rajshahi where newly appointed gazetted officers Sub-Inspectors and constables learn their duties. There is another school at Dacca for the training of constables. The annual cost of the Police is nearly Rs. 109 lakhs.

Medical.

The head of the Medical Department is the surgeon General with the Government of Bengal, and Sanitation is in charge of the Sanitary Commissioner both these officials being members of the Indian Medical Service. There is also a Sanitary Engineer for the Presidency. In the districts the Civil Surgeons are responsible for medical work. There are 30 hospitals in Calcutta, 9 of which are supported by the Government and 888,677 persons are treated at these institutions annually, of whom nearly 82,427 are in patients. In the mofussil districts there are several hundred hospitals and dispensaries the number of patients treated annually in the Province were 5,571,324 including 60,605 in patients.

Education.

In the Presidency of Bengal education is imparted partly through Government agencies and partly through private bodies, assisted in large measure by Government grants-in-aid. Government maintains three Arts Colleges in Calcutta (of which one is a college for women and one the Sanskrit College) one at Hughli, one at Krishnagar, one at Dacca, one at Rajshahi and one at Chittagong. It also maintains two training colleges one at Calcutta and one at Dacca, for teachers who teach in secondary schools through the medium of English and normal schools one in each division for the training of teachers in secondary schools through the medium of the vernacular. Also an engineering college at Sibpur and an engineering school at Dacca, a medical college, a veterinary college, a school of art and a commercial school in Calcutta and a weaving school at Serampore. It also provides at the headquarters of all districts, except Burdwan and Midnapore, and also at certain other mofussil centres High English schools for the education of boys while to each Government Arts College a high school is attached. In Calcutta there are three high schools for boys two of which are attached to Presidency College and one to the Sanskrit College. Government high schools for girls exist only in the headquarters stations of Calcutta, Dacca, Mymensingh and Chittagong. The other secondary schools with the exception of a few middle schools, managed either by Government or by boards are under private control. The administration of primary education in all areas, which are not under municipalities, rests with the district boards. Large grants being given from provincial revenue to the boards which contribute only slightly from their own funds. Only in backward localities are such schools either entirely managed or directly aided by Government. Apart from the institutions referred to above 115 institutions called Gurm Training Schools are maintained by the Department for the training of vernacular teachers. For the education of Mahomedans there are senior madrasas at Calcutta, Dacca, Chittagong and Hughli, which are managed by Government. There are also certain Government institutions for technical and industrial education. A large proportion of educational work of every stage is under the control of various missionary bodies which are assisted by Government grants-in-aid.

The municipalities are required to expend a certain proportion of their ordinary income on education. They are mainly responsible for primary education within their jurisdiction, but schools in these areas are eligible also for grants from Government. These bodies maintain a second grade Arts College and a high school at Midnapore, a high school at Burdwan, a high school at Santipur and a high school at Chittagong.

There are now in the Presidency --

Arts Colleges	84
Law	10
Medical College	1
Engineering College	1
Training College	5
Secondary Schools	2,557
Primary Schools	35,983
Special	3,728
Private Institutions	2,374

with 799,889 pupils in all

The Government Educational Budget allotted for the province for 1914-1915 is Rs. 1,46,43,000. Of this a large proportion represents the grants recently allotted by the Government of India.

The Department is administered by a Director of Public Instruction assisted by an Assistant Director and an Assistant Director for Muhammadan Education and a special officer in connection with Technical and Industrial Education. Each division is in charge of a Divisional Inspector assisted by a certain number of Additional and Assistant Inspectors according to the requirements of the several divisions. Similarly the administrative charge of the primary education of each district is in the hands of a Deputy Inspector assisted by Additional Deputy and Sub-Inspectors of Schools the latter class officers being in some instances helped by officers of humbler status called Assistant Sub-Inspectors and Inspecting Pandits. Higher education is controlled by the University (Calcutta) established in 1857 administered by the Chancellor (the Governor General and Viceroy of India) the Rector (the Governor of Bengal), the Vice-Chancellor (appointed by the Government of India, usually for two years at a time) and 110 fellows, of whom 10 are ex-officio 10 are elected by the Graduates 10 by the Faculties and the remainder 80 are nominated by the Chancellor. The University maintains a Law College called the University Law College Calcutta. The University is mainly an examining body but it has now made itself responsible for the actual teaching of students for which purpose it employs an agency which is quite distinct from the staffs of the affiliated colleges. Four University professorships (Minto, Carmichael, Hardinge and King George V) have recently been founded.

The principal educational institutions are --

GOVERNMENT ARTS COLLEGES.

Presidency College Calcutta, Principal, H. R. James
Dacca College Principal, W. A. J. Archbold.
Rajshahi College Principal, Rai K. Banerji
Bahadur

Chittagong College Principal, J R Barrow
 Sanskrit College Principal Dr S C Acharya
 Hughli College Principal, J Bottomley
 Krishnagar College, Principal, S C Das
 Bethune College Calcutta Lady Principal
 Miss S Ghosh

PRIVATE ARTS COLLEGES

Scottish Churches College Calcutta Principal
 Rev J Watt
 St. Xavier's College Calcutta Rector Rev
 Father Crohan
 L. M. S. College Bhowanipore (Calcutta)
 Principal R V A Sims
 Jagannath College Dacca Principal Ral L M
 Chatterji Bahadur
 Brijnathan College Barisal, Principal N L
 Mookherjee
 Anandamohan College Mymensingh Principal
 Dr J Ghosh.
 Victoria College Comilla Principal Satvendra
 Nath Basu
 West van College Bankura Principal Rev J
 Mitchell.
 Victoria College Narail Principal, Gopal
 Chandra Maitra
 Hindu Academy Daulatpur Principal Kama
 Khayacharan Nag
 Soranpore College Principal Dr George Howell
 St Paul's Cathedral Mission College Calcutta
 Principal W B Holland
 Edward College Pabna Principal, R Bose
 Diocesan College Calcutta Lady Principal
 Sister Mary Victoria
 City College Calcutta Principal Horanib
 Chandra Maitra.
 Ripon College Calcutta Principal Ramendra
 Sundar Tivedi
 Bangabasi College Calcutta Principal G C
 Bose
 Metropolitan Institution Calcutta Principal
 Saradaranjan Roy
 Bishop's College Calcutta Principal, Rev R
 Gee
 Central College Calcutta Principal Khudiran
 Bose
 Krishna Chandra College Hetampur Principal
 Dhurumdas Dutt
 Burdwan Raj College Principal Umachara
 Bandopadhyaya
 Uttarpara College Principal, Jogendra Nath
 Mitra.
 Krishna College Berhampore Principal S
 Banerji (ONG.)
 Loreto House Calcutta Lady Principal Mother
 Gonzaga.

MUNICIPAL

Midnapore College Principal, Jogendra Nath
 Hazra.

COLLEGES FOR PROFESSIONAL TRAINING

Engineering—Government

Civil Engineering College Shibpur Principal
 B Hinton

Teaching—Government

High Hare Training College Principal W E
 Griffith

Barua Training College Principal E E Biss
 Midnapore

L. M. S. Training College Bhowanipore (Cal
 cutta), Rev A Sims

Medicine—Government.

Medical College Calcutta Principal, Lt-Col
 J T Calvert

Law

University Law College, Calcutta, Principal
 Dr Batia.

The Law Department attached to the Dacca
 College Vice Principal Musazzam Ali

The Law Department attached to the Ripon
 College Calcutta Principal Jankinath Bhat
 tashari

There are also Elitership classes attached
 to the Government Colleges at Dacca, Rajshahi,
 Moorshidabad, Chittagong and Krishnagar and in the
 Municipal College at Berhampore, the Ripon
 College and the Metropolitan Institution
 Calcutta, and the Municipal College at Midna
 pore

Administration

GOVERNOR AND PRESIDENT IN COUNCIL

His Excellency The Rt. Hon Thomas David
 Baron Carmichael of Skirling G.C.B. K.C.M.G.
 Took his seat 1st April 1912

PERSONAL STAFF

Private Secretary W R. Gourlay

Military Secretary Capt Henry George Vaux
 Dursley Capt W L. Harnett I.M.S.

Aides-de-Camp Capt W P Ocock Middlesex
 Regiment 2nd Lt Duncan Balfour Lothian
 and Border Horse

Honorary Aides-de-Camp Lieut-Col C M
 Pearce, V.D. Commander E A. Constable,
 R.M. Lt Col R. Glen V.D. Hon. Col
 C Routh, Lt Col R. S. Hawkins V.D. Com
 mander Duncan Frederik Vinc R. I. M.
 Lt-Col D A. Tyrie, V.D.

Extra Aides-de-Camp, Lt J. L. Mercer 5th
 Battalion (Queen's Royal West Surrey Regt.)

Indian Aides-de-Camp Bhalidar Ismail, Khan
 Bahadur
 Commander of Body Guard Lt H. A. Garston
 21st Cavalry

BENGAL EXECUTIVE COUNCIL

V D Beaton Bell. Took his seat, November
 1914

P C Lyon C.S.I. Took his seat, 1st April 1912.

Syed Shams-ul Huda. Took his seat, 1st April
 1912.

LEGISLATIVE COUNCIL OF BENGAL

Councillors Ex-Officio.

N D Beaton Bell

Mr P C Lyon C.S.I., I.C.S.

Nawab Syed Shams-ul Huda

Nominated Officials

Mr James Donald
F J Monahan
F A A Cowley
J H Kerr CIE
Kiran Chandra Dc CIE
C H Bompas
L Birley CIE
Col W R Edwards CB IM
Mr B B Newbould
Binod Chandra Mitra
W W Hornell
Rai Priya Nath Mukharji Bahadur
Mr C F Payne

Nominated Non-officials

Nawab Sir Asif Quddus Sa'id Wazir Ali Mitra
Khan Bahadur Kero of Morshidabad
Mr H J Hilary
Satyendra Prasanna Sinha
Dr Nilratan Sarkar
Laja Hrishikesh Laha, CIE
Lt Col R Glen

Elected

Mr Byomkes Chakravarti
Sir Bijay Chand Mahtab
Maharaja Jagadindra Nath Ray
Raja Soehi Kanta Acharyya Chaudhuri Bahadur
Dr Deba Prosad Barbadhikari
Maulvi Muhammad Ismail Khan Chaudhuri
Rai Badhacharan Pal Bahadur
Mr Edward Hugh Brist
Archibald Birkmyr
W T Grier
G A Bayley
A W Grevelly Chaplin
Golam Hossain Cassim Ariff
Munshi Mahabul Anwar Chaudhuri
Maulvi Musarrat Hussain
Maulvi Abdul Kaseem Fazl ul Haq
Nawab Saiyid Hossain Halidar Chaudhuri
Khan Bahadur
Maharaja Ransjit Simha of Nashipur
Rai Nalinaksha Basu Bahadur
Raja Mahendra Ranjan Ray Bahadur
Nawab Saiyid Nawab Ali Chaudhuri, Khan Bahadur
Babu Prasanna Kumar Roy
Babu Surendra Nath Banarji
Babu Surendra Nath Roy
Babu Mohendra Nath Ray
Rai Hari Mohan Chandra Bahadur
Babu Upendra Lal Ray

SECRETARIAT

Chief Secretary to Government J G Cunningham CIE
Secretary Revenue Department, J H Kerr CIE
Secretary General Department H F Samman
Secretary Financial Department, H L Stephen Esq.
Secretary Judicial Department, E P Chapman
Secretary to the Councils and Secretary Legislative Department, A. W. Watson

Secretary to Government, Public Works Department, and Chief Engineer H H Green
Under Secretary to Government, Public Works Department (Irrigation Branch) Anand Nath Mitra

BOARD OF REVENUE

Member D J Macpherson CIE
Secretary W A Mart
MISCELLANEOUS APPOINTMENTS
Director of Public Instruction W W Hornell
Principal School of Arts P Brown
Inspector General of Police R B Hughes
Buller CIE
Commissioner, Calcutta Police Reginald Clarke (Offg)
Conservator of Forests C E Muriel
Inspector General of Civil Hospitals Col G F Harris CIE
Sanitary Commissioner Major W W Clemesha
Deputy Sanitary Commissioner for Malaria Research Major A B Fry
Collector of Customs Calcutta E G L L M Gregor CIE
Commissioner of Excise and Salt A N Moberly
Accountant General M G Tomblins CIE
Inspector-General of Prisons Lt-Col W J Buchanan CIE
Postmaster General P G Rogers, CIE
Inspector General of Registration P N Mukharji
Director of Agriculture J R Blackwood
Protector of Emigrants C Banks Esq
Chairman of Calcutta Corporation C F Payne
Superintendent Royal Botanic Gardens Major A T Gage
Comptroller F K Dobbins
Registrar of Co-operative Credit Societies J M Mitra

LIEUTENANT-GOVERNORS OF BENGAL

Frederick J Halliday	1854
John I. Grant	1859
Cecil Beadon	1862
William Grey	1867
George Campbell	1871
Sir Richard Temple Bart KCSI	1874
The Hon Ashley Eden CSI	1877
Sir Stuart C Bayley KCSI (Offg)	1879
A Rivers Thompson CSI CIE	1882
H A Cockrell CSI (Official)	1885
Sir Stuart C Bayley KCSI CIE	1887
Sir Charles Alfred Elliott, KCSI	1890
Sir A P MacDonnell KCSI (Offg)	1893
Sir Alexander Mackenzie KCSI	1896
Retired 6th April 1898	
Charles Cecil Stevens CSI (Official)	1897
Sir John Woodburn KCSI	1898
Died 21st Nov 1902	
J A Bourdillon CSI (Official)	1902
Sir A H Leth Fraser KCSI	1903
Lancelotti Hare CSI CIE (Offg)	1904
F A Stokes (Official)	1906
Sir E N Baker KCSI	1906
Retired 21st Sept. 1911	
F W Duke, CSI (Official)	1911
The office of Lieutenant-Governor of Bengal was abolished on April 1st 1912 when Bengal was raised to a Governorship	
GOVERNORS OF THE PRESIDENCY OF BENGAL	
WILLIAM IV BENGAL	
The Rt Hon Baron Canning of 1812	
Skirring, G.C.I.E., K.C.B.	

The United Provinces

The United Provinces of Agra and Oudh lie in practically the centre of Upper India. They are bounded on the north by Tibet, on the north-east by Nepal, on the south and south-east by Bengal, on the south by two of the Chota Nagpur States of the Central India Agency and the Saugor District of the Central Provinces, and on the west by the States of Gwalior, Dhoolpur, Bharatpur, Simor and Jubbulpur and by the Punjab. Their total area amounts to 107,367 square miles, to which may be added the area of the two Native States of Tehri and Rampur both of which lie within the United Provinces, 5,079 square miles and the newly-created independent State of Benares with an area of 865 miles, giving a total of 113,346 square miles. The total population is 45,014,060 out of which Tehri and Rampur account for 832,036.

The Provinces, originally termed the North-Western Provinces and so amalgamated in 1877, receiving their present designation in 1902, include four distinct tracts of country: portions of the Himalayas, the sub-Himalayan tracts (the Kumaon), the great Gangetic plain and portions of the hill systems of Central India (Bundelkhand). The first two of these tracts are in fertile and support a very sparse population and the Central Indian plateau is almost equally infertile, though better populated. The soil of the Gangetic plain, however, possesses an extreme fertility and here the density of population rises from 512 persons per square mile in the west to 549 in the centre and 718 in the east, which gives the Provinces as a whole a greater population pressure on the soil than any other Provinces in India. In the south there are low rocky hills, broken spurs of the Vindhyan mountains covered with stunted trees and jungle, and in the North the lower slopes of the Himalayas clothed with dense forest, affording excellent big and small game shooting, and rising beyond in a tangled mass of ridges, ever higher and higher, until is reached the line of the eternal snows, but the greater part of the provinces consists of level plains teeming with highly-cultivated fields and watered by four rivers—the Ganges, Jumna, Gogra and the Ghaghara.

The People.

The population is mainly Hindu, 85 per cent., ranking as such whilst Mahomedans number 14 per cent., the total of all other religions being less than 0.5 per cent., composed of Christians (Europeans and Indians), Jains, Aryas and Sikhs; the Aryas are the followers of the Arya Samaj sect, which obtains widely in the Punjab and has extended its influences to the United Provinces. The three main physical types are Dravidian, Aryan and Mongoloid, the latter being confined to the Himalayan and sub-Himalayan districts and the former to South Kanpur and Bundelkhand, whilst the high-caste Aryas frequent the western Districts of the Frontier. Most of the people, however, show a mixed Arya-Dravidian origin. There are several groups spoken by the great majority of the people in the plains—Western Hindi, Eastern Hindi and Bahrari; Urdu, or Hindustani, is a

dialect of Western Hindi though it contains a large admixture of Persian and Arabic words which makes it a *lingua franca*.

Industries

The principal industry is agriculture which supports no less than 71.7 of the population. The soils of the Provinces fall into three groups: the valley soils of the Himalayas, the main alluvium and the Central Indian alluvium, the chief characteristics of the Central Indian alluvium is the black soil, with a lighter variant, though here also there are light loams and gravel. The Himalayan soils are of local origin and vary with the nature of the rock from which they have been formed whilst the main alluvium soils are sand, clay and loam, the loam being naturally the most productive. The soil generally yields excellent crops of rice, millet, maize, linseed, cotton, wheat, sugarcane, pulses, barley and poppy rice being grown mostly in low-lying heavy clay. The greater part of the Provinces is highly cultivated, the rainfall varies from 50 to 60 inches in the Hills to 40 inches in the Benares and Gorakhpur Divisions whilst the Agra Division receives about 25 to 30 inches annually only. Drought seriously affected Bundelkhand and the Agra Division in the past, but improved drainage, and irrigation (a protective system of irrigation works exists and is being extended) have enabled a complete recovery to be made and the agricultural prosperity of the Provinces is now high, though it varies with the rainfall. The great scourge has been, and is, that of plague which hampers the agriculturist severely and in the Terai malaria still exacts a large toll. Land is held mostly on the ryotwari tenure in Bundelkhand and Kumaon, on zamindari tenure in Agra and taluqdari tenure in Oudh. The principal land owners in Oudh are the Taluqdars, some of whom own very large estates. The area held in taluqdari tenure amounts to 51 per cent. of the total area in Oudh.

Manufactures.

The Provinces are not rich in minerals. Coal exists in Southern Mirzapur. Iron and copper are found in the Himalayan Districts, and there were mines of importance there formerly but increased difficulty of working them as veins became exhausted resulted in the closure of most of them. Gold is found in minute quantities by washing in some of the rivers in the Hills. Limestone is found in the Himalayas and stone is largely quarried in the Mirzapur District. Cotton is ginned and spun throughout the provinces, as a home industry, and weaving, by means of hand-looms, is carried on in most districts. In 1901 nearly a million persons were dependent on weaving, 140,000 on spinning and 156,000 on cleaning, pressing, and ginning, but during the last decade these industries have been on the decrease. The largest industry is in Ammargh district, where there are 180,000 looms. Silk spinning is carried almost entirely to the district of Benares, where the famous Khasi brocade is made. Kan-

broillery is manufactured in Lucknow where the noted *chakra* work of silk on cotton or muslin, is produced, and in Benares, where gold and silver work on velvet silk, crepe and saraset obtain. The glass industry is important in some districts, Benares and Moradabad are noted for their lacquered brass work porcelain is manufactured at Ghasipur and other industries are those of paper making (Lucknow) dyeing, leather work and fireworks. The chief centre of European and Indian industry is Cawnpore which, situated in most advantageous position on the Ganges, possesses tanneries cotton woollen jute and other mills, which have a large and ever increasing output (the woollen mill is the largest in India). There are cotton factories at Aligarh (famous for its locks) Meerut and Bareilly Mirzapur (which produces also excellent carpets) Hardoi and Hathras have cotton mills. Excellent furniture is made at Bareilly at Allahabad there are stone works at Roza there is very large English distillery with patent still and the province can claim six breweries with an out turn of over a million gallons.

The largest trade centres are Cawnpore Allahabad, Mirzapur Benares, Lucknow Meerut, Aligarh, Hathras, Muttra, Agra Farukhabad Moradabad, Chandauli Bareilly, Saharanpur Munirnagar Ghaziabad Khurja Gorakhpur Ghasipur Pilibhit and Shajahanpur.

Administration

The Province are administered by a Lieutenant-Governor who is generally chosen from among the members of the Indian Civil Service who have served in the Province. The medium for the transaction of public business is the Secretariat the Staff of which consists of five Secretaries and five Under Secretaries. The Chief Secretary is in charge of the Revenue, Appointment, General Administration, Political and Forest Departments another Secretary attends to the Medical Judicial Police, Educational and Sanitation Department whilst a third looks to the Local Self Government, Financial, Municipal Miscellaneous and Separate Revenue Departments. The other two Secretaries belong to the Public Works Department and are also Chief Engineers, one of whom deals with Irrigation and the other with Roads and Buildings. Government spends the cold weather October to April, in Lucknow and Allahabad, mostly in Lucknow the Secretariat moves between these two places. The Lieutenant-Governor and the Secretariat spend the hot weather in Naini Tal, but during the monsoon the Lieutenant-Governor tours the plains, as he does also in the cold weather. The Board of Revenue is the highest court of appeal in revenue and rent cases, and it has important executive duties being the chief revenue authority in the Province. There are forty-eight British districts, thirty-six in Agra and twelve in Oudh average area 2,000 square miles and average population a million. Each District is in charge of a District Officer termed a Collector and Magistrate in Agra and a Deputy Commissioner and Magistrate in Oudh and Kumaon, who is an Indian Civilian. The Districts are grouped together in Divisions under a Commissioner. There are nine Divisions, having an average area of nearly 12,000 square miles and a population of from 6 to 8 millions.

The Districts are sub-divided into *tahsils*, of which there are 217, with an average area of 500 square miles and a population of 250,000. Each *Tahsil* is in charge of a *Tahsildar*, who is responsible for the collection of revenue, and also exercises judicial powers. *Tahsils* are divided into *parganas* which are units of importance in the settlement of land revenue. Subordinate to the *Tahsildars* are *tanams* of whom there are on an average three to a *tahsil*. These officials supervise the work of the *patwars*, or village accountants, check their papers and form a link direct between the villagers and Government. For judicial purposes (revenue and criminal) the District Officer assigns a subdivision, consisting of one or more *tahsils* as the case may be to each of his subordinates who may be co-ventured civilians, (Joint and Assistant Magistrates and Collectors) or members of the Provincial Service (Deputy Collectors and Magistrates). The Commissioner of the Bareilly and Kumaon Divisions are Political Agents for the Native States of Rampur and Tehri respectively and the Commissioner of Benares is the Political Agent for Benares State.

Justice

Justice is administered by the High Court in the Province of Agra and the Court of the Judicial Commissioner in Oudh which are the final appellate authorities in both criminal and civil cases. The former, which consists of a Chief Justice and five puisne Judges two of whom are Indians sits at Allahabad, and the latter represented by a Judicial Commissioner and two Additional Commissioners one of whom is an Indian sits always in Lucknow. There are twenty-seven District and Additional District Judges (Indian Civilians) twenty-one in Agra and six in Oudh who have both original and appellate jurisdiction in civil and criminal cases and occasional appellate jurisdiction in rent cases but District Officers and their assistants including *Tahsildars* preside in both criminal and rent and revenue courts, and dispose of a good deal of the work. In Kumaon, the Commissioner is a High Court Judge in civil cases and a District Judge in Criminal cases. In the larger Cantonnments, the Cantonment Magistrates have limited powers as Judges of a Small Cause Court. There are also Subordinate Judges Judges of Small Cause Courts and *Munsifs*, who dispose of a large number of small civil suits being specially empowered, in some cases, to decide suits up to Rs. 2,000 but generally they take cases up to Rs. 1,000, whilst Subordinate Judges hear cases up to Rs. 5,000 Appeals from *Munsifs* and Subordinate Judges go to the District Judges Small Cause Court Judges try suits to the value of Rs. 500 There are also Honorary *Munsifs* limited to Rs. 200 suits, and village *Munsifs*, whose jurisdiction is fixed at Rs. 50.

Local Government.

Local Government is exercised by means of District and Municipal Boards, the former levying local rates on land-owners the latter deriving its revenue from octroi and other forms of taxation. The aim is to abolish octroi, because it interferes with through trade. Eighty-five Municipalities possess the privilege of electing their own members and some of them have non-official

Chairmen. They are generally composed of nominated and elected members, with an official Chairman who guides them in their duties. They deal with questions of sanitation, communication, lighting, town improvement, roads, water supply, drainage and education. Grants are made to Boards by Governments in some cases for special purposes from general revenues. There is a tendency in the Provinces to give local self-government a wider extension by means of an increase in the number of boards with non-official Chairmen and recently this privilege has been extended to fifteen Municipalities. Small towns termed Act XX towns also enjoy some measure of local self government and it is under consideration to extend the principle here, too.

Finance

The Financial history of the Province has not been a happy one, inadequate settlements, contracts between the Government of India and the local Government and the severe famine in 1897 having caused Provincial bankruptcy which for a long time necessitated rigid economy in order to accumulate reserves which could be spent on productive works. Recently liberal Imperial assignments have been made by the Government of India and the financial prospects are accordingly much brighter giving hopes that ambitious schemes of reform will be able to be carried into effect. The local Government gets 3-8 only of the land revenue. The Provincial Budget for 1915-16 shows an opening balance of 19½ lakhs revenue 25 lakhs, and expenditure 69½ lakhs and a closing balance of 93 lakhs.

Public Works

The Public Works Department is divided into the Roads and Buildings branch and the Irrigation branch, each of which is administered by a Chief Engineer who is also a Secretary to Government. The Provinces are divided into three circles and ten divisions for the administration of roads and buildings, and into four circles and twenty divisions for irrigation purposes. Each circle is in charge of a Superintending Engineer and each division is in charge of an Executive Engineer. The whole of the irrigation works constructed or maintained by Government are in charge of the Department nearly all metalled roads and also bridges on second-class roads, and generally all works costing more than Rs 1,000 except in Municipalities. The most important irrigation works within the last twenty years have been the construction of the Betwa Canal, the Fatehpur branch of the Lower Ganges Canal, the Mat branch of the main Ganges Canal, improvements in the Rohilkhand and Terai Canals and extensive drainage operations in the Doab districts of the Meerut and Agra divisions. Important irrigation extension works are now being considered. The budget for irrigation and other public works for the present year is 144 lakhs.

Police

The Police Force is divided into District and Railway Police and is administered by an Inspector-General, with five Deputies, one of whom is in charge of Railways and two Assistant, forty nine District Superintendents,

two Railway Superintendents, and thirty Assistant Superintendents. There is a Police Training School at Moradabad. There is a local C. I. D. forming a separate detective department, under a Deputy Inspector General, with an assistant. There is an armed police specially recruited, and armed with the Martini Rifle. The present cost of the force is 124 lakhs. The administration of the Jail department is in charge of an Inspector-General of Prisons who is a member of the Indian Medical Service.

Education

Education is in part wholly State maintained and partly by means of grants-in-aid. There is a State University at Allahabad, a Government Sanskrit College at Benares whilst Arabic and Persian are taught in special classes at the Muir College, Allahabad, which also has a special science side which of late has been greatly extended and there is a Government Engineering College at Roorkhee (Thomason College). There are aided Colleges in Lucknow (Canning College) (Reid Christian College) and (Isabella Thoburn College) Agra (St. John's) Aligarh (the Mahomedan Oriental College) Gorakhpur Cawnpore and Meerut and an unaided College at Benares the Central Hindu College. In Lucknow there is the Martineau school an entirely independent institution for European and Anglo-Indian children and there is a Girls' Madras connected with it whilst in the Hill Stations, Naini Tal and Mussoorie there are many excellent private scholastic institutions for European boys and girls, which are attended by students from all over India. Government maintain Training Colleges for teachers in Lucknow and Allahabad, an Art Crafts and an Industrial School in Lucknow and an Agricultural College at Cawnpore. Public Schools are almost entirely maintained by the District and Municipal Boards and primary education is almost entirely in their hands. Primary and female education are in a very backward condition and a Committee has recently been sitting at Naini Tal to suggest a remedy. Technical education is being pushed forward and there is a proposal to establish a Technological Institute in Cawnpore. At the close of 1912 there were 1686 urban schools attended by 103,134 scholars and 10,003 rural schools attended by 482,355 scholars and the number of secondary schools for Indian boys was 54, 625, Anglo-Vernacular High Schools 102 with 42,611 scholars, Vernacular Middle Schools 475 with 45,725 scholars and English Middle Schools 68 with 10,284 scholars. The amount budgetted for education this year is 87 lakhs.

Higher education is controlled by the Allahabad University (constd. in 1887) which consists of a Chancellor, Vice-Chancellor and seventy-five ordinary and four ex-officio Fellows, of whom some are elected by the Senate or by registered graduates and the Faculties, and the remainder nominated by the Lieutenant-Governor, in his capacity of Chancellor. The Faculties are those of Art, Science, Law and Medicine, and the University possesses an important Law School. It is proposed to establish a Mahomedan University at Aligarh and a Hindu University at Benares has now received legislative sanction.

The principal educational institutions are —
The Mahomedan Anglo-Oriental College,
Aligarh—Principal, J H Towle

The Central Hindu College Benares—Principal P B Adhikari offic

St John's College, Agra—Principal, Rev A W Davies

Nutr College Allahabad—Principal S G Jennings

Queen's College Benares—Principal P S Farrel

Canning College Lucknow—Principal M B Campton

Agra College—Principal T Cuthbertson Jones

Reid Christian College Lucknow—Principal Rev T C Badley

Meerut College—Principal William Jesse

Woodstock College Mussoorie—Principal Rev H M Andrews

Bareilly College—Principal J H Alderson

Christian College Allahabad—Principal Rev C A R Janvier

Christ Church College Cawnpore—Principal Rev M S Douglas

Isabella Thoburn College Lucknow—Principal Miss Robinson

Thomason College Roorkhee—Principal Lt Col E H de Vere Atkinson

King George's Medical College Lucknow—Principal, Colonel Selby I M S

Medical.

The Medical Department is in charge of an Inspector General of Civil Hospitals. A Civil Surgeon is in charge and is responsible for the medical work of each district and in a few of the larger stations he has an assistant. In two stations (Ranikhet and Almora) Medical Officers in military employ hold collateral civil charge. There are eighty three Assistant Surgeons in charge of important dispensaries and a large number of Indian hospital assistants. Lady doctors and female hospital assistants visit *purda nashin* women in their own homes and much good work is done in this manner.

The best equipped hospitals for Indian patients are the Thomason Hospital at Agra and the Balrampur Hospital at Lucknow. The Ramay Hospital for Europeans at Nalutal is a first class institution and there are also the Lady Dufferin Hospitals. King George's Medical College and the hospital in connexion with it have been opened recently in Lucknow. The College is one of the best equipped in the country with a staff of highly efficient professors, and the hospital is the first in the Provinces. There is an X Ray Institute at Dohra Dun, where valuable research work has been carried out and the Pasteur Institute at Kasauli takes cases from all parts of India and there are sanatoria for British soldiers in the Hills.

Administration.

Lieutenant-Governor Sir J S Meston, K.C.S.I.

Assumed charge of office 15th September 1912

Private Secretary A P Collett, I.C.S.

Honorary Aides-de-Camp Lieut Col P H Clutterbuck Lieut Col J H E Beer C.I.M. v.D. Lieut Col J Walker v.D. Hon'y Capt. Subadar Major Kanhai Prasad Dube Bhaladur Major Quadrat Khan Bahadur

LEGISLATIVE COUNCIL OF THE LIEUTENANT GOVERNOR.

President, The Lieutenant-Governor

Vice President J M Holmes C.S.I.

Members

H H Nawab Sir Muhammad Hamid Ali Khan Bahadur C.I.E. C.O.V.O. Wall of Rampur

Kunwar Aditya N Singh of Benares.

J S Campbell C.S.I. C.I.F.

Raja Sir Muhammad Tasadduk Rasul Khan, K.C.S.I.

Nawab Mumtaz ud-daula Sir Muhammad F Ali Khan C.I.E. K.C.V.O. C.S.I. of Pakhal.

A W Pim

A L Saunders C.S.I.

R Burn

Raj Nathi Mal Bahadur C.I.E.

Narsingh Prasad

S P O Donnell

Rana Sr Shora Singh K.C.I.E.

W G Wood

Col. C MacTaggart C.I.E. I.M.S.

C F de la Fozze

D M Straight

H R C Haulcy

H C Ferard.

F Mackinnon

Dr Tej Bahadur Sapru

Raj Gokul Prasad Bahadur

John Mitchell Holm.

Mahadeo Prasad

E H Asworth

Sayid Muhammad Abdur Pau

Shankar Sahai Sahib

Belak Ram

Raja Kushalpal Singh

Brij Nandan Prasad

Moti Lal Nohru

Said Muhammad Hadi Khan Bahadur

Maharaja Sir Bhagwati Prasad Singh K.C.L.E. of Balrampur

Moti Chand

G T Anthony

Sayid Baza Ali

Abul Khair Shabid Hossain

Asghar Ali Khan

Robert Watson Pike.

Bishambhar Nath

Sukht Singh

Lt-Col S H Henderson

H V Lovett

Raja Ram Lal Singh C.I.E. of Kurri Sudani

Logie P Watson

Moulvi Saïyid Karanast Hussain	The Right Hon. the Governor-General in the North-Western Provinces (Lord Auckland)	1838
George Gali Sîm.	T C Robertson	1840
Pandit Jagat Narayan	The Right Hon. the Governor-General in the North Western Provinces (Lord Ellenborough)	1842
Pandit Tara Dutt Gairrolar		
SECRETARIAT		
Chief Secretary to Government, B. Burn.	Sir G. E. Clerk K.C.B.	1843
Financial Secretary to Government, A. W. Pim.	James Thomson Died at Bareilly	1843
Judicial S. P. O. Donnell	A. W. Begbie <i>In charge</i>	1853
Secretary to Government, Public Works Dept (Buildings & Roads & Railways) W. G. Wood	J. B. Colvin Died at Agra	1853
C.S.I.	E. A. Roade <i>In charge</i>	1857
Secretary to Government, Public Works Dept (Irrigation), G. T. Anthony	Colonel H. Fraser C.B. Chief Commr. of the N.W. Provinces.	1857
Registrars F. E. Lowe & Grant W. J. Summers	The Right Hon. the Governor-General administering the N.W. Provinces (Viscount Candlish)	1858
F. C. Richardson,		
BOARD OF REVENUE		
Members J. M. Holm, C.S.I. J. S. Campbell	Sir G. F. Edmonstone	1859
C.S.I. C.B.	R. Money <i>In charge</i>	1863
Secretary J. E. Goudge	The Hon. Edmund Drummond	1863
MISCELLANEOUS APPOINTMENTS		
Opium Agent Ghazipur C. E. Wild	Sir William Muir K.C.S.I.	1868
Director of Land Records and Agriculture H. R. C. Halley	Sir John Strachey K.C.S.I.	1874
Director of Public Instruction C. F. de la Fosse	Sir George Couper Bart. G.B.	1876
Inspector-General of Police D. M. Straight	LIEUTENANT-GOVERNORS OF THE NORTH WESTERN PROVINCES AND CHIEF COMMISSIONERS OF QUDD.	
Inspector-General of Civil Hospitals Col. C. Mantagart, M.A., M.B., C.I.E., C.M.S.	Sir George Couper Bart. C.B. K.C.S.I.	1877
Sanitary Commissioner Ident. Col. S. A. Harriss I.M.S.	Sir Alfred Comyns Lwall K.C.B.	1882
Inspector-General of Registration W. Raw	Sir Auckland Colvin K.C.M.G. C.I.E.	1887
Commissioner of Excise T. A. H. Way	Sir Chas. H. T. Crosthwaite K.C.S.I.	1892
Accountant-General J. F. Graham	Alan Cadell (<i>Officiating</i>)	1895
Inspector-General of Prisons Lt. Col. V. H. Henderson M.B., C.M., I.M.S.	Sir Antony P. MacDonnell K.C.S.I. (a)	1895
Postmaster-General C. J. H. Hogg	Sir J. J. D. La Touche K.C.S.I.	1901
Chemical Analyst and Bacteriologist, Dr. E. H. Hankin	(a) Afterwards (by creation) Baron MacDonnell	
LIEUTENANT-GOVERNORS OF THE NORTH WESTERN PROVINCES		
Sir C. T. Metcalfe Bart. G.C.B.	LIEUTENANT-GOVERNORS OF THE UNITED PROVINCES OF AGRA AND QUDD.	
	Sir J. J. D. La Touche, K.C.S.I.	1902
	Sir J. P. Hewett K.C.S.I. C.I.E.	1907
	L. A. B. Porter C.S.I. (<i>Officiating</i>)	1912
	Sir J. S. Weston K.C.S.I.	1912

The Punjab.

The Punjab or land of the five rivers, is so called from the five rivers by which it is enclosed, namely the Jhelum, Chenab, Ravi, Beas and Sutlej. Together with the North West Frontier Province and the Native State of Jammu and Kashmir which lie to the north the Punjab occupies the extreme north-western corner of the Indian Empire and with the exception of the above-mentioned provinces, comprises all of British India north of Sind and Baluchistan and west of the river Jumna. Previous to October 1912 the Punjab with its feudatories embraced an area of 136,330 square miles and a population at the Census of 1911 of 24,187,750 (inclusive of 28,587 trans-frontier Baluchis) that is to say about one-thirteenth of the area and population of the Indian Empire. But the formation of a separate province of Delhi reduced the area and population of the Punjab by about 450 square miles and 880,000 souls respectively. Of the total area of the Punjab, 36,551 square miles are in Native States (34 in number) with a population of 4,212,784 and 2,546 square miles are tribal territory on the western border of Dera Ghazi Khan district with a population of 28,587.

Physical Features

The greater part of the Punjab consists of one vast alluvial plain, stretching from the Jumna in the east to the Sulaiman Range in the west. The north-east is occupied by a section of the Himalayas and the Salt Range forms its north-western angle. A few small spurs of the Aravalli mountain system traverse the extreme south-east and terminate in the Ridge at Delhi. The Punjab may be divided into five natural divisions. The Himalayan tract includes an area of 22,000 square miles with a scanty population living scattered in tiny mountain hamlets. The Salt Range tract includes the districts of Attock, Rawalpindi and Jhelum and part of Shahpur district. Its physical configuration is broken and confused and the mountainous tracts of Murree and Kahuta approximate closely in character to those of the Himalayan tract. Except in the hills, the rainfall leaves little margin for protection against distress in unfavourable seasons and irrigation is almost unknown. Kirting the base of the hills and including the low range of the Siwaliks runs the narrow sub-montane tract. This tract, secure in an ample rainfall, and traversed by streams from the hills, comprises some of the most fertile and thickly populated portions of the province. Its population of over four millions is almost wholly agricultural and pastoral but it includes one large town in Sialkot. Of the plains of the Punjab, the eastern portion covers an area of some 36,000 square miles with a population of 104 millions. East of Lahore the rainfall is everywhere so far sufficient that cultivation is possible without irrigation in fairly favourable seasons, but over the greater part of the area the margin is so slight that except where irrigation is employed, any material reduction in the rainfall involves distress, if not actual famine. Within the eastern plains lie the large cities of Lahore and Amritsar, and the population in comparison with the western Punjab

is largely urban. The western plains cover an area of 58,000 square miles with a population of a little over six millions. The rain fall in this area, heaviest in the north and east and decreasing towards the west and south, is everywhere so scanty that cultivation is only possible with the aid of artificial irrigation or upon the low-lying river-banks left moist by the retreating floods. In this very circumstance, these tracts find their security against famine for their cultivation is almost independent of rain, a failure of which means nothing worse than a scarcity of grass. So little rain is sufficient, and absolute drought occurs so seldom that the crops may be said never to fail from this cause. The western plains embrace the great colony areas on the Lower Chenab and Lower Jhelum Canals which now challenge the title of the eastern plains as the most fertile, wealthy and populous portions of the province. Multan and Lyallpur are the largest towns in the western area. Owing to its geographical position its scanty rainfall and cloudless skies, and perhaps to its wide expanse of untilled plains the climate of the Punjab presents greater extremes of both heat and cold than any other portion of India. The summer from April to September is scorchingly hot, and in the winter sharp frosts are common. But the bright sun and invigorating air make the climate of the Punjab in the cold weather almost ideal.

The People.

Of the population roughly one half is Mahomedan, three-eighths Hindu and one-eighth Sikh. Socially the landed classes stand high and of these the Jats numbering nearly five millions are the most important. Roughly speaking one half the Jats are Mahomedan, one-third Sikh and one-sixth Hindu. In distribution they are ubiquitous and are equally divided over the five divisions of the province. Next in importance come the Rajputs, who number over a million and a half. The majority of them are Mahomedans by religion, about a fourth are Hindus and a very few Sikhs. They are widely distributed over the province. Both Jats and Rajputs of the Punjab provide many of the best recruits for the Indian Army. The Gujars are an important agricultural and pastoral tribe chiefly found in the eastern half of the province and in the extreme north-west. In organisation they closely resemble the Jats and are often absorbed into that tribe. There are many minor agricultural tribes, priestly and religious castes (Brahmans, Sayads and Kurashis) most of whom are landholders, the trading castes of the Hindus (Khatris, Aroras and Banias) and trading castes of the Mahomedans (Khojas, Parachas and Khakhias) and the numerous artisan and menial castes. There are also vagrant and criminal tribes and foreign elements in the population are represented by the Baluchis of Dera Ghazi Khan and neighbouring districts in the west, who number about half a million and maintain their tribal system and the Pathans of the Attock and Mianwali districts. Pathans are also found scattered all over the province engaged in

horse-dealing, labour and trade. A small Tibetan element is found in the Himalayan districts.

Languages.

The main language of the province is Punjabi, which is spoken by more than half the population. Western Punjabi may be classed as a separate language, sometimes called Lahndi and is spoken in the north and west. The next most important languages are Western Hindi which includes Hindustani, Urdu (the polished language of the towns) and other Hindi, Western Pahari which is spoken in the hill tracts and Rajasthan, the language of Rajputana. Baluchi Pushto Sindhi and Tibeto Burman languages are used by small proportions of the population.

Agriculture

Agriculture is the staple industry of the province, affording the main means of subsistence to 56 per cent of the population. It is essentially a country of peasant proprietors. About one-sixth of the total area in British districts is Government property, the remainder five-sixths belonging to private owners. But a large part of the Government land is so situated that it cannot be brought under cultivation without extensive irrigation. Thus the Lower Chenab Canal irrigates nearly 1,900,000 acres of what was formerly waste land and the Lower Jhelum Canal 390,000 acres, and the Lower Bari Doab Canal when the reclamation scheme is completed will add 1,200,000 acres to this total. Large areas in the hills and elsewhere which are unsuited to cultivation are preserved as forest land, the total extent of which is about 4,700 square miles. Of the crops grown wheat is the most important and the development of irrigation has led to a great expansion of the wheat area which now occupies in an average year over 8½ millions of acres. The average annual output of wheat is 3,000,000 tons valued at present prices at approximately £20,000,000. Next in importance to wheat is gram, the average annual produce of which is a million tons, valued at £5,000,000. Other important staples are barley, rice, millets, maize, oilseeds (rapeseed and sesamum), cotton and sugarcane. Cotton is grown generally throughout the province but the ravages of boll-worm have affected the productivity of the crop. The cotton grown is of the short stapled variety known as Bengali. The country being preponderantly agricultural a considerable proportion of the wealth of the people lies in its live stock. The latest cattle census gives the following figures—cattle, nearly 8,000,000 head; buffaloes, about 550,000; bovine young stock, 3,500,000; sheep, 4,500,000; goats, 4,250,000. Large profits are derived from the cattle and dairy trades and wool is a staple product in the south west in Kulu and Kangra and throughout the plains generally. The production of hides and skins is also an important industry.

Industries.

The mineral wealth of the Punjab is small, rock salt, saltpetre and limestone for road building being the most important products. There are some small coal mines in the Jhelum district, with an output of about 50,000 tons a year, and gold-washing is carried on in most

of the rivers, not without remunerative results. Iron and copper ores are plentiful but difficulties of carriage and the absence of fuel have hitherto prevented smelting on a large scale. The Punjab is not a large manufacturing country, the total number of factories being only 224, the majority of which are devoted to cotton spinning, weaving and pressing. Cotton weaving as a domestic industry is carried on by means of hand looms in nearly every village. The Salvation Army has shown considerable enterprise in improving the hand weaving industry. Blankets and woollen rugs are also produced in considerable quantities and the carpets of Amritsar are famous. Silk weaving is also carried on and the workers in gold, silver, brass, copper and earthenware are fairly numerous and ivory carving is carried on at Amritsar and Patiala. The trade of the province is steadily expanding the total internal trade being valued at 65½ crores of rupees. The external trade with Afghanistan, Ladakh and Tibet is valued at 34 lakhs.

Administration.

The administrative functions of Government are performed by a Lieutenant-Governor appointed by the Governor-General with the approval of the Crown. The Lieutenant-Governor in practice is always a member of the Indian Civil Service though military members of the Punjab Commission are eligible for the position. The Punjab Commission the body which is responsible for the civil administration of the province is recruited from the Indian Civil Service and the Provincial Civil Service. Up to the date of the separation of the North-West Frontier Province from the Punjab one-fourth of the cadre was drawn from the Indian Army. The business of Government is carried on through the usual Secretariat which consists of three Secretaries designated (1) Chief, (2) Revenue and (3) Financial Secretaries and three Under-Secretaries. There is also at present an Additional Secretary. In the Public Works Department there are also three Secretaries (Chief Engineer), one in the Buildings and Roads Branch and two in the Irrigation Branch. The heads of the Police and Educational Departments are also Under-Secretaries to Government. The Government spends the winter in Lahore and the summer (from the middle of May to the middle of October) in Simla. The Lieutenant-Governor has no Executive Council but is assisted in legislative business by a Legislative Council of 24 members, of whom eight are elected and 16 nominated by the Lieutenant-Governor. Of the nominated members, not more than ten may be officials in addition there may be two nominated expert members. Under the Lieutenant-Governor the province is administered by five Commissioners (for Amritsar, Jalandhar, Lahore, Rawalpindi and Multan) who exercise general control over the Deputy Commissioners—25 in number—each of whom is in charge of a district. A district on an average contains four tahsils, each containing about 300 villages. The Deputy Commissioner is usually a Covenanted Civilian or military member of the Punjab Commission although five Deputy Commissionerships are listed for Provincial Civil Servants. The Deputy Commissioner has under him one or more Assistant Commissioners (Coven-

anted Civilian) and one or more Extra Assistant Commissioners (Provincial Civilian). In some cases, one or more tahsils form a sub-division under the charge of a sub-divisional officer who has wide powers. The tahsil is in charge of a Tahsildar in some cases assisted by one or more Naib Tahsildars. The village is under a Lambardar or headman and in most districts the villages are grouped into talas, each under a zildar. The Lambardars and zaidars are village officers and not Government servants. The district Land Records and Excise staff though organised for special departmental purposes, is available for general administrative work. The Native States of the province are arranged for the purposes of supervision into five groups each under the charge of a Political Agent. Except in the case of the Sikh Pothohar States (Patiala, Jalandhar and Nabha) and the Bahawalpur Agency the Political Agent is either the neighbouring Commissioner or Deputy Commissioner. The principal heads of Department in the province are the two Financial Commissioners (who are the highest Court of Revenue jurisdiction) and heads of the departments of Land and Separate Revenue and of Agriculture and the Court of Wards) the three Chief Engineers the Inspector General of Police the Director of Public Instruction the Inspector General of Prisons, the Inspector General of Civil Hospitals, the Sanitary Commissioner the Conservator of Forests, the Director of Agriculture and Industries, the Inspector General of Registration and the Legal Remembrancer. The Accountant-General, the Postmaster General, the Director of Telegraph Engineering and the Agent North Western Railway represent Imperial Departments under the Government of India.

Justice

The administration of justice is entrusted to a Chief Court which is the final appellate authority in civil and criminal cases and has powers of original criminal jurisdiction in cases where European British subjects are charged with serious offences and original civil jurisdiction in special cases. The Court sits at Lahore and is composed of a Chief Judge and four puisne judges (either Civilian or barristers) a sixth additional judge whose appointment is sanctioned for two years and a seventh and eighth additional judge whose appointment is sanctioned for one year. There is a strongly supported movement in the province in favour of raising the Court to the status of a High Court, but the Secretary of War recently refused to sanction the proposal. Subordinate to the Chief Court are the District and Sessions Judges (22 in number) each of whom exercises civil and criminal jurisdiction in a civil and sessions division comprising one or more districts. They hear most of the first appeals in civil suits and try sessions cases and hear criminal appeals from the district and first class magistrates. One or two divisions have an additional judge and in many districts a Subordinate Judge exercising unlimited civil jurisdiction, is appointed to assist the District Judge but the majority of civil suits are tried in the first instance by Munsifs whose jurisdiction is

limited to suits not exceeding Rs. 1,000 in value. The assistants to Deputy Commissioners are always invested with the powers of a Munsif, but the former practice of investing Tahsildars with Munsifi powers is being gradually discontinued. At Lahore, Amritsar and Simla there are Courts of Small Causes. The Deputy Commissioner is the District Magistrate and controls the subordinate Criminal Courts of the District. All the assistants of the Deputy Commissioner as well as the District and Subordinate Judges but not the Munsifs, are invested with magisterial powers. Tahsildars usually exercise the powers of a second class magistrate and Naib Tahsildars those of the third class, and considerable assistance is obtained from Honorary Magistrates who sit either singly or as a bench. In districts in which the Frontier Crimes Regulation is in force the Deputy Commissioner on the finding of a Council of Elders (Jirga) may pass sentence up to four years imprisonment. In all cases capital sentences require the confirmation of the Chief Court. Special Revenue Courts to decide all suits regarding tenant right rents and cognate matters in which civil courts have no jurisdiction have been established under the Punjab Tenancy Act. The Financial Commissioners are the final court of appeal in revenue cases.

Local Government.

Local control over certain branches of the administration is secured by the constitution of district boards exercising authority over a district and of municipalities exercising authority over a city or town. A few districts have local boards which exercise authority over a tahsil. These bodies are composed of members either nominated by Government or elected by the people and they are empowered to spend the funds at their disposal on schools and dispensaries, vaccination, sanitation, roads and rest houses and general improvements. The funds of district boards are derived mainly from a cess on the land revenue of the district supplemented by grants from Provincial Funds and those of municipalities from octroi, local taxation and Government grants. In the smaller towns which are known as notified areas a simpler form of government than the municipal system is in force. Where the elective principle is in force as regards both district boards and municipalities, the public shows very little interest in the elections except in a few cases where sectarian feeling runs high.

Finance.

Under the present system of decentralisation in finance the Imperial Government delegates to the Punjab Government the control of expenditure on the ordinary administrative services together with the whole or a certain proportion of certain heads of revenue sufficient to meet those charges. Of the various heads of revenue post office, telegraphs, railways, opium and salt are entirely Imperial. Land revenue stamps, excise, income-tax and major irrigation works are divided between the Imperial and Provincial Governments in the proportion of one half to each. Minor irrigation works and some minor heads are divided in varying proportions, while the

revenue from forests, registration courts of law, jails, police and education are wholly provincial as well as the income of district boards and municipalities. The Budget for 1915-16 shows a total revenue (including opening balance) of Rs. 5,41,83,000 and a total expenditure of Rs. 4,91,64,000 leaving a closing balance of Rs. 49,39,000.

Public Works.

As was stated in the section on Administration the Public Works Department is divided into two branches one for Buildings and Roads and the other for Irrigation. In the former branch, under the Chief Engineer, the province is divided into three circles under Superintending Engineers and 11 divisions under Executive Engineers, while the King Edward Memorial at Lahore also constitutes a special division. The primary object of this branch is the construction and maintenance of Imperial and Provincial works, but it also assists municipalities and district boards. The Irrigation branch is under two Chief Engineers, one of whom is also Chief Engineer of Irrigation Works to the North West Frontier Province. Under them are nine Superintending Engineers in charge of circles and 39 Executive Engineers in charge of divisions. In addition to the work of construction and maintenance Irrigation Officers are responsible for the assessment of water rates leviable on irrigated areas and in several districts where the land revenue demand is assessed on the fluctuating principle for the remuneration of this demand on irrigated crops as well.

Irrigation.

The canal system of the Punjab is admittedly one of the greatest achievements of British rule in India. Not including the enormous Triple Canal project now in process of completion the total irrigated area in British districts and Native States amounts to 8,269,253 acres. The Beas is the only one of the great rivers of the province from which no canal takes off. The Indus provides supplies for two large series of inundation canals one on either bank. Taking off from the Jhelum is the Lower Jhelum perennial canal, with 150 miles of main channel and 1,000 miles of distributaries and lower down the river is a large series of inundation canals. The Lower Chenab perennial canal takes off from the Chenab and comprises 427 miles of main channel and branches and 2,278 miles of branches, while below the junction of the Chenab and Ravi rivers is a series of inundation canals on both banks. The Ravi provides supplies for the Upper Bari Doab Canal, which has 370 miles of main line and branches and 1,571 miles of distributaries. Some small inundation canals and the Sidhant system with a length of 290 miles also take off from the Ravi. The Sialkot Canal, which has a main line and branches of 538 miles and distributaries amounting to 3,703 miles, takes off from the Sutlej and there are two systems of inundation canals deriving their supplies from the Upper and Lower Sutlej respectively in addition to the Grey Canals maintained on the cooperative system in the Ferozepore district and a vast series of inundation canals in Bahawalpur

State. The Western Jumna Canal, which takes off from the right bank of the Jumna, has a main line and branches of 377 miles and distributaries of 1,784 miles. The Triple Canal project is intended to carry surplus water from the Jhelum and the Chenab to supplement the scanty supplies in the lower reaches of the Ravi and incidentally to afford irrigation to the tracts through which the supply channels pass. The three canals included in the project are known as the Upper Jhelum, Upper Chenab and Lower Bari Doab Canals. Of these the Upper Chenab was opened in April 1912 and the Lower Bari Doab in April 1911 and the Upper Jhelum was opened in December. The most interesting feature of this great work is the level crossing at Ballal 40 miles from Lahore where the Upper Chenab canal supply is passed across the Ravi into the Lower Bari Doab Canal. The revised estimate of the cost of the whole scheme is £8½ millions.

Police.

The Police force is divided into District and Railway Police. The combined force is under the control of the Inspector-General who is a member of the gazetted force and has under him three Deputy Inspector-Generals, for the Eastern (Ambala), Central (Lahore) and Western (Rawalpindi) Ranges respectively and a fourth Deputy Inspector-General in charge of Railway Police. Criminal Investigation the Police Training School and Fingerprint Bureau at Phillaur. The Railway Police are divided into two districts Northern and Southern each under a Superintendent. The District Police are controlled by Superintendents each of whom is in charge of a district and has under him one or more Assistant Superintendents. The district is divided into circles under charge of Inspectors, and again into thanas in charge of a Sub-Inspector. The staff of a thana consists on an average of one Sub-Inspector, two head constables and 10 constables. A service of Provincial Police officers has also been established consisting of 18 Deputy Superintendents, who are employed as assistants to the Superintendents. The total police force of the province exclusive of gazetted officers consists of 1,075 officers and about 20,000 men, practically half of whom are armed with revolvers and bored out rifles. The village police or chaudhars are under the control of the Deputy Commissioners of each district not of the Police Superintendent. The cost of the Police Force is 68½ lakhs.

Education.

Although the Punjab is usually considered rather a backward province, education has made great strides especially in the last ten years. Government maintain the Government College at Lahore, the Central Training College at Lahore, a Training Class for European teachers at Sanawar (Simla Hills), normal schools at the headquarters of each division and High Schools at the headquarters of each district, and the Lawrence Military Asylum at Sanawar for European children. There are in the province nine arts colleges (one of them Oriental); 6 professional colleges for males and 1 for females; 111 High

Schools for boys and 16 for girls 241 middle schools for boys and 48 for girls 4,518 Primary Schools for boys and 798 for girls 54 schools for special instruction for boys and 12 for girls. The number of pupils attending schools of all classes is 294,182 boys and 45,651 girls. The nine arts colleges are—The Government, Oriental, Fortman Christian, Dayanand, Islamia and Dayal Singh Colleges at Lahore, Khalsa Amritsar, Murray Statelot Gordon Ranalphindi. Professional education is represented by the Law, Medical and Veterinary Colleges at Lahore, the Agril cultural College at Lyallpur, the Clerical and Commercial School at Amritsar, the Engineering School at Rasul, the Mayo School of Art and the Railway Technical School both at Lahore. There are eight Industrial Schools in the Province maintained by Municipalities or District Boards and others maintained by Missionary bodies, the Arya Samaj etc. which receive grants-in-aid. The education of the domiciled community is provided for by a number of secondary boarding schools in hill stations and of primary schools in the plains. The aristocracy of the province is provided for by the Atkinson Chiefs College for boys and the Queen Mary College for girls, both at Lahore.

The Education Department is administered by the Director of Public Instruction who has under him an Inspector of Schools in each civil division with two or more assistants, a District Inspector with assistants, in each district two Inspectresses of girls schools and an Inspector of European schools. Higher education is controlled by the Punjab University (Incorporated in 1882) which has the Lieutenant-Governor as *ex-officio* Chancellor, a Vice-Chancellor appointed by Government and a Senate. In addition to the nine arts colleges already mentioned and the Law and Medical Colleges at Lahore St. Stephen's College Delhi, and the Hindu College Delhi and six other colleges in Kashmir, Patiala, Bahawalpur, Kapurthala and the North West Frontier Province are affiliated to the Punjab University.

Medical.

The Medical Department is controlled by the Inspector-General of Civil Hospitals (a member of the Indian Medical Service) who also supervises the departments of the Chief Plague Medical Officer and the Chief Malaria Medical Officer. Sanitation is controlled by the Sanitary Commissioner (also a member of the Indian Medical Service) who has under him two Deputy Sanitary Commissioners and is advised by the Sanitary Board, with the Sanitary Engineer as Technical Adviser. Medical work in the districts is in charge of the Civil Surgeons of whom fourteen are members of the Indian Medical Service and others Military Assistant Surgeons and uncovenanted Medical Officers, chiefly Civil Assistant Surgeons. The Mayo Hospital at Lahore and special railway canal and police hospitals are maintained by Government, but the ordinary hospitals and dispensaries in the districts are maintained by municipal or district funds. Certain private institutions such as the Walker Hospital at Simla and many mission dispensaries receive grants-in-aid. The

Mayo Hospital at Lahore is being greatly extended and improved as a memorial to King Edward VII. The total number of patients treated at all hospitals and dispensaries in the year is over four and a half millions including nearly 75,000 in patients. A temporary department to combat plague has been organised under the Chief Medical Plague Officer. In the districts the Civil Surgeons are generally in charge of the operations against plague, but additional officers are employed from time to time. There is only one lunatic asylum in the Province at Lahore, but there are ten leper asylums. The Pasteur Institute at Kasauli performs the functions of a provincial laboratory for the Punjab. Vaccination is supervised by the Sanitary Commissioner but is more particularly the concern of the Deputy Sanitary Commissioner who has under him a special staff. Civil Surgeons also have a local staff of vaccinators under them.

Administration.

Lieutenant Governor Sir M. F. O. Dwyer K.C.S.I.
Assumed charge 1911

PERSONAL STAFF

Private Secretary Lieut. Col. E. C. Bayley
C.I.E. I.A.
Honorary *Aides de Camp*: Lieut. Col. W. T. Wright M.C. (Army), Col. A. Elsakder Major
Muhammad Hayat Khan Subedar Bahadur
Gulab Singh

LEGISLATIVE COUNCIL.

President The Lieutenant Governor
Vice President A. H. Dinckley

MEMBERS

Nominated

Nawab Sir Bahram Khan K.C.I.E.
J. C. Godley C.S.I.
Sir M. W. Fenton K.C.S.I. J.C.S.
Sundar Singh Majithia, Sardar Bahadur
Col. H. Hendley M.D. I.A.
A. H. Dinckley C.V.O.
C. A. Barron C.I.E.
P. J. Fazan
S. W. Gracey
Raisada Begum Rani.
Khurshid Yusuf Shah Khan Bahadur
Nawab Ibrahim Ali Khan of Kunjpura.
J. P. Thompson
Col. R. S. MacLagan C.B. C.S.I.

Elected

J. Currie
Lala Kashi Ram of Ferozpur
Rana Saran Das of Lahore
Hari Chand of Multan
Gajjan Singh of Ludhiana,

Bakhtul Bohan Lal of Lahore
 Malik Muhammad Amin Khan of Shamsabad.
 Sir F C Chatarji, C.I.E.
 Secretary S W Gracey

SECRETARIAT

Chief Secretary C A Barron C.I.E. I.C.S.
 Revenue Secretary J P Thompson I.C.S.
 Financial Secretary O F Lumaden
 Registrar W Burr Bryan I.S.O.

PUBLIC WORKS DEPARTMENT

Irrigation Branch

Secretaries T R John Ward C.I.E. F. I. Rose
 M.I.C.E.

Buildings and Roads Branch

Secretary Col P S MacLagan C.B. C.S.I.
 R.E.

REVENUE DEPARTMENT

Financial Commissioners A H Diack C.V.O.
 Sir M W Fenton K.C.S.I.

Director of Agriculture and Industries C A
 B H Townend B.A. I.C.S.

Director of Land Records Inspector General of
 Registration and Registrar-General L. French
 C.I.E.

Director of Fisheries G C L Howell

MISCELLANEOUS APPOINTMENTS

Director of Public Instruction J C Godley C.S.I.
 Inspector General of Police Lieut. Col H T
 Denryslia

H A (Juss) N W Frontier Province

Conservator of Forests, R. McIntosh
 Inspector General of Civil Hospitals Colonel
 Harold Hensley M.D. I.M.S.
 Sanitary Commissioner Lt. Col. Sydney
 Browning Smith D.P.H. I.M.S.
 Inspector-General of Prisons Lt.-Col G F W
 Brails.

Accountant General W Alder I.C.S.

Postmaster-General G R Clark I.C.S.

Registrar of Co-Operative Credit Societies
 and Joint Stock Companies A. Langley

LIEUTENANT GOVERNORS OF THE PUNJAB

Sir John Lawrence Bart., G.C.B. 1859

Sir Robert Montgomery K.C.B. 1859

Donald Friell McLeod C.B. 1860

Major-General Sir Henry Durand 1870

K.C.S.I. C.B. died at Tonk January 1871

R H Davies C.S.I. 1871

B. E. Egerton C.S.I. 1877

Sir Charles U Allchison K.C.S.I. 1882

C.I.E.

James Broadwood Lyall 1887

Sir Dennis Fitzpatrick K.C.S.I. 1892

William Mackworth Young C.S.I. 1897

Sir C M Rivaz, K.C.S.I. 1902

Sir D C J Ibbetson K.C.S.I. resigned 1907

22nd January 1908

T G Walker C.S.I. (off) 1907

Sir Louis W Dane K.C.I.E. C.S.I. 1908

James McCrone Doule (off) 1911

Sir M F O Dwyer K.C.S.I. 1911

Burma.

The Province of Burma lies between Assam on the North-West and China on the North-East, and between the Bay of Bengal on the West and South-West and Siam on the South-East. Its area, including the district of Putao constituted in February 1914, is approximately 270 000 square miles of which 172 000 are under direct British Administration 31 000 belong to independent and 67 000 to semi-independent Native States. The main geographical feature of the country is the series of rivers and hills running fan-like from North to South with fertile valleys in between widening and flattening out as they approach the Delta. On the West are the high hills of the Chin country, Manipur and Assam and on the East the uplands of the Shan States. On the South are the hill ranges of Siam. The country is divided East and West by the Dry Zone which has most of the features of the highlands of India. South and North of this are the Wet Zones with a rich tropical vegetation. The climate of the Dry Zone resembles that of Behar; the temperature in May rising to 118°; the climate of the Wet Zones is moist but fairly equable. The magnificent rivers the number of hilly ranges (Yomas) and the abundance of forests all combine to make the scenery of Burma exceedingly varied and picturesque.

The People

The total population of Burma at the census of 1911 was 12 115 217. Of this total 7 642 204 are Burmans, 946 420 Shans, 919 941 Karens, 239 653 Kachins, 306 486 Chins, 344 123 Arakanese and 320 629 Talings. There is also a large alien population of 108 977 Chinese and about 600 000 Indians, while the European population is 24 355.

The Burmans who form the bulk of the population belong to the Tibetan group and their language to the Tibeto-Chinese family. They are essentially an agricultural people, 80 per cent of the agriculture of the country being in their hands. Their chief concern is with their fields and their paddies. As long as they are left in peaceful enjoyment of these they are apparently indifferent as to the Government of the country. In appearance the Burman is usually somewhat short and thick-set with Mongolian features. His dress is most distinctive and exceedingly comfortable. It consists of a silk handkerchief bound round his forehead, a loose jacket on his body and a long skirt or loongyi tied round his waist, reaching to his ankles. The Burman women perhaps the most pleasing type of femininity in the East, lead a free and open life, playing a large part in the household economy and in petty trading. Their dress is somewhat similar to the man's minus the silk kerchief on the head, and the loongyi is tucked in at the side instead of being tied in front. A well-dressed and well-groomed Burmese lady would for grace and neatness challenge comparison with any woman in the world.

Communications.

The Irrawaddy and to a less extent the Chindwin afford great natural thoroughfares to the country. At all seasons of the year

these rivers, especially the Irrawaddy, are full of sailing and steam craft. In the Delta, the net work of waterways is indeed practically the only means of communication. The Irrawaddy Flotilla Company with a fine fleet of mail cargo and ferry boats gives the Irrawaddy and the Delta rivers and creeks a splendid river service.

The Burma Railways Company has a length of 1 600 miles open line. The principal lines are from Rangoon to Mandalay, from Sagan to Myitkyina, the most northern point in the system, the Rangoon-Prome line and the Pegu-Martaban line which serves Moumein on the further bank of the Salween River. An important branch line runs from Thazi on the main line across the Mektila and Myingyan Districts to Myingyan Town on the Irrawaddy. Another branch goes from Sagan on the Irrawaddy to Aloon on the Chindwin. A small branch on the Sagan-Myitkyina line runs from Naba to Katha on the Irrawaddy. A branch on the right bank of the Irrawaddy runs from Damaun to Kyanlin. A ferry at Hingada connects this branch with another branch running from Letpadaung on the Prome line to the left bank of the Irrawaddy at Tharaway. An important line, the Southern Shan States Railway is open as far as Aungmye 7 miles beyond Kalay, the terminus of the line of the province and 70 miles from Thazi, the junction with the Rangoon-Mandalay main line. The new line will end thirty miles further East at Yawngbi, the principal town in the rich valley of the Nam-Pu.

The length of metalled roads is 19°6 miles and of unmetalled roads 1116. The number of roads is for a rich province like Burma quite inadequate. One of the most urgent needs of the Province is a very generous extension of roads both metalled and unmetalled.

Industry

Agriculture is the chief industry of the province and supports nearly three-fourths of the population. The net total cropped area in 1914-15 was 14 239 300 acres of which more than a million acres was irrigated land. The main crop is paddy of which 2 348 400 tons were exported in spite of the closing of foreign markets on account of the war. This totals higher than in any previous year except 1913-14 but the price realized was less than in any year since 1909-10 being four hundred lakhs of rupees lower than the value of the previous year's export. Rice forms 63 per cent of the total exports. Over 8 000 tons of cotton (about 45 000 bales) were produced, 88 000 tons of groundnuts, and 87 000 tons of sesamum. Malt (50 000 tons) and millet (60 000 tons) are the other chief crops.

Forests play an important part in the industrial life of the Province. The total area of reserved and unclassified forests is 141,483 square miles. Wood is extracted by licensees, of whom the Bombay Burma Trading Corporation and Messrs. Steel Brothers are the principal. In 1913-14, Government extracted 58,000 tons of teak while purchasers extracted 242,500 tons.

A third important branch of industry consists of working mines and quarries in which Burma is particularly rich. The petroleum fields are in the Dry Zone, chiefly at Yamangyung in the Magway District where the principal extractor is the Burma Oil Company. The total output of petroleum for the Province in 1918 was nearly 278 million gallons in 1914 nearly 255 million gallons. In the Ruby Mines District the Burma Ruby Mines Company at Mogoke produced in 1914 stones valued at £44,000. 3,704 ounces of gold were won by the Burma Gold Dredging Company from the bed of the Irrawaddy River north of Myitkyina.

The Burma Mines Company at Bawdwin in the Northern Shan States produced 24,901 tons of lead slag valued at Rs. 6 lakhs and 3,769 tons of silver lead ore valued at Rs. 58 lakhs. 19,462 tons of iron ore were mined in Mandalay District and 8,538 tons of zinc ore valued at Rs. 16 lakhs in the Southern Shan States. The Tawmaw Mines of the Myitkyina District produced 498 tons of jade valued at Rs. 2 lakhs.

Tungsten ores chiefly wolfram are mined in Tavoy Morgul and the Southern Shan States. Unofficial returns give the output in the year 1913 as 2,700 tons or nearly twice as much as the United States produces. In five years Burma has risen to the first place amongst countries producing these valuable ores with the United States and Portugal bracketed second.

The rubber industry is still in its infancy only 10 plantations employing more than 20 persons. The plantations are situated in the Morgul, Amberst, Hantawaddy and Toumpong Districts. At the Census of 1911, 4,047 people were returned as engaged in the production of rubber. The total quantity exported in 1914-15 was 8,816 cwt. The prospect of rubber in this Province is very promising, but the estimates of the output in the immediate future have been framed in the sanguine spirit of the company promoter and are not likely to be realized.

Manufactures.

There are 424 factories 249 of which are engaged in milling rice and 89 are sawmills. The remainder are chiefly cotton spinning mills, oil mills for the extraction of oil from ground nuts and oil refineries connected with the petroleum industry. The average daily number of operatives rose from 50,723 in 1912-13 to 62,066 in 1913-14. The increase was chiefly in rice-mills. At the Census of 1911, 469,743 or only 6.6 of the total population were engaged outside agriculture and production.

As is the case in other parts of the Indian Empire, the imported and factory made article is rapidly giving the home made and indigenous. Even at Amarapura in the Mandalay District a revival has taken place of hand silk weaving. Bamboo wood-carving is still famous and many articles in silver still remain, the finish of whose work is sometimes very fine. Basmal and Mandalay parrots are well known and much admired in Burma. But perhaps the most

famous of all hand made and indigenous industries is the lacquer work of Pagan with its delicate patterns in black, green and yellow traced on to a ground work of red lacquer over bamboo. Lacquered articles ranging from those of the most exquisite finish to those of a coarse description are produced at Pagan on the Irrawaddy and are sold throughout the length and breadth of Burma.

Trade

The total value of the foreign trade in 1914-15 was only 2,961 lakhs a decline of 20 per cent. compared with the previous year. Imports amounted to Rs. 1,139 lakhs or 10 per cent less than in the previous year. Rangoon the only port with facilities for distribution of goods took 88.8 per cent of the foreign trade and 83.2 per cent of the Indian trade. The net customs duty was Rs. 136 lakhs or 32 per cent less than in 1913-14. The decline in trade was due less to lack of demand than to shortage of shipping owing to the war. Trade with India increased by 5 per cent to Rs. 2,562 lakhs.

The most important item of merchandise imported into Rangoon is manufactures of cotton which account for 25 per cent. of the total import trade. These imports are valued at Rs. 260 lakhs. The United Kingdom took 61 per cent. of the total import trade in 1914-15.

Administration.

In 1897 the Province which had formerly been administered by a Chief Commissioner was raised to a Lieutenant Governorship. The head of the Province is therefore now the Lieutenant-Governor. He has a Council of seventeen members, one of whom is elected by the Burma Chamber of Commerce, one by the Rangoon Trades Association and the remaining fifteen are nominated by the Lieutenant Governor. Not more than seven members may be official; the rest must be non-officials and at least four must be selected from the Burmese population one from the Indian and one from the Chinese community.

Burma is divided administratively into Upper Burma (including the Shan States and Chin Hills) and Lower Burma. The Shan States are administered by the Chiefs of the States, subject to the supervision of the Superintendents in the case of the Northern and Southern Shan States, and to the supervision of the Commissioners of the adjoining Divisions in the case of the other States. The Civil Criminal and Revenue administration is vested in the Chief of the State, subject to the restrictions contained in the manual. The law administered is the customary law of the State.

The Chin Hills are administered by a Superintendent.

Under the Lieutenant-Governor are eight Commissioners of divisions, four in Upper and four in Lower Burma. Commissioners in Upper Burma and the Commissioner of the Arakan Division are ex-officio Sessions Judges, but the other three Commissioners have been relieved of all judicial work.

Under the Commissioners are 39 Deputy Commissioners including the Police officers in charge of the Hill Districts of Arakan and the Salween District, who exercise the powers of Deputy Commissioner. Deputy Commissioners are also District Magistrates, Collectors and Registrars, except in Rangoon where there is both a District Magistrate and a Collector. Subordinate to the Deputy Commissioners are Assistant Commissioners. Extra Assistant Commissioners and township officers called Myooks. In the villages are the village headmen, thugyis assisted in Lower Burma by the Soekgaungs (rural policemen in charge of ten houses). The revenue administration is controlled by a Financial Commissioner assisted by two Secretaries. Subordinate Departments are in charge of a Commissioner of Settlements and Land Records, a Director of Agriculture, a Superintendent of the Civil Veterinary Department and a Registrar of Co-operative Credit Societies.

Justice.

The administration of Civil and Criminal Justice is under the control of the Chief Court of Lower Burma with six judges (one temporary) and of the Judicial Commissioner, Upper Burma with an Assistant Judicial Commissioner. There are seven Divisional and eight District Judges. There are also separate Provincial and Subordinate Judicial Services. Divisional Judges are also Sessions Judges. The Chief Court at Rangoon is the highest civil court of appeal and the highest court of criminal appeal and revision in Lower Burma. It is also the High Court for the whole of Burma (including the Shan States) where European British subjects are concerned. It is the principal Civil and Criminal Court of original jurisdiction for Rangoon Town and hears appeals from all sentences of Courts and magistrates exercising jurisdiction in Rangoon Town.

In Criminal and Civil matters the Judicial Commissioner of Upper Burma exercises the power of a High Court for appeal, reference and revision except in respect of criminal cases in which European British subjects are concerned.

All village headmen have limited Magisterial powers and a considerable number are also invested with civil jurisdiction to a limited extent.

Municipalities.

The Rangoon Municipality is the most important with an income of Rs 42 lakhs and an expenditure of Rs 44.48 lakhs. The Chairman is a member of the Indian Civil Service of Deputy Commissioner's rank. The members of the Committee are elected by wards.

There are 44 major Municipalities, of which the most important are those at Mandalay and Moulmein. The average incidence of Municipal taxation is Rs 3-6-3.

Local Funds.

No Local Boards or District Boards exist in Burma. In their place in Lower Burma there are District Dues Funds, derived mostly from a 10 per cent. cess on collections of ordinary local revenues and from collections from

markets, ferries, slaughter houses, etc. The total receipts amount to 32.99 lakhs.

In Upper Burma there are District Funds. They are derived from market, ferry and license fees and occasional grants from Provincial revenues. The total revenue was over 10 lakhs.

There are 7 Cantonment Funds, 10 Town Funds and excluding the Rangoon Port Trust 6 Port Funds.

Finance.

As in the case of all other Provinces the finances of Burma are based on a Provincial Settlement. In the case of Burma it came into force on the 1st April 1907 and the Government of India retains in the first place the entire profits of the commercial departments such as Posts and Telegraphs and in the second place all the revenue where the locale is no guide to its true incidence such as the net receipts from Customs, Salt and Opium.

But as the income from these sources is inadequate for the purpose of meeting the cost of the Imperial Services special arrangements are made as with other Provinces for the division of the remaining sources of revenue between Imperial and Provincial Funds.

In 1910-1911 as a result of the Report of the Decentralisation Committee modifications were introduced into the Settlement. Briefly the Local Government retains 5.8ths of the net Land Revenue instead of a half and the whole of the net Forest revenue. The following figures show the gross revenue and expenditure for 1918-19 —

	Receipts	Expenditure
	Rs	Rs
Imperial	442.67 lakhs	60.60 lakhs
Provincial	261.47	52.31
Local Funds	45.80	39.99
Municipalities	104.12	111.69
Other Funds	144.79	129.82

The Imperial Government makes a fixed annual assignment to the Burma Government. Under the settlement of 1911 this assignment was fixed at Rs 12.99 lakhs, including this sum contributions from Imperial Funds, the year 1913-14 amounted to Rs 35.34 lakhs, as compared with Rs 98.29 in the previous year.

From 1914-15 onwards the Government of India had allotted an additional recurring grant of Rs 15 lakhs to the province and had further guaranteed to the province a minimum aggregate of revenue advancing by Rs 3 lakhs annually until 1929-30. No payments under this guarantee will be made till after the war but it will have retrospective effect from the year 1911-12.

Public Works.

This Department is administered by two Chief Engineers who are also Secretaries to Government in the Public Works Department. There are eight Superintending Engineers (including one for Irrigation and a Sanitary Engineer), 83 Executive Engineers and 45 Assistant Engineers. A Consulting Architect is attached to Head Quarters.

There are four Major Irrigation Works—Man daly, Shwebo and Mon Canals and the Ye-U canal in the Shwebo District still under construction.

Police.

The Police Force is divided into Civil, Military and Rangoon Town Police. The first two are under the control of the Inspector General of Police, the latter is under the orders of the Commissioner of Police, Rangoon, an officer of the rank of Deputy Inspector-General.

There are four other Deputy Inspectors-General, one each for the Eastern and Western Range, one for the Railway and Criminal Investigation Department and one for the Military Police.

The sanctioned strength of the Civil Police Force at the end of March 1913 was 1,486 officers and 14,316 men but the numbers fell 1,003 short of the sanctioned strength. The strength of the Military Police on the 1st January 1914 was 15,986 officers and men. The Rangoon Town Police stand at 79 officers and 1,191 men.

A special feature of Burma is the Military Police. Its officers are deputed from the Indian Army. The rank and file are recruited from natives of India with a few Kachins, Karens and Shans. The organisation is Military, the force being divided into Battalions. The object of the force is to supplement the regular troops in Burma. Their duties, apart from their Military work, is to provide escorts for special prisoners etc. and guards for Treasuries, Jails and Courts.

Education.

At the head is the Director of Public Instruction with an Assistant Director. There are 6 Inspectors of Schools belonging to the Imperial and one belonging to the Provincial Service, and 7 Assistant Inspectors belonging to the Provincial Service. The Rangoon College is staffed by a Principal and nine Professors drawn from the Imperial Service with three from the Provincial Service. Outside the Education Department is the Educational Syndicate which holds certain examinations and serves as an advisory body on educational questions referred to it by Government.

Burma has no University but it has two Colleges—the Rangoon College and the Baptist College which are affiliated to the Calcutta University. Under Government there are—

An Arts College, Law School, Reformatory School, School of Engineering, Apprentice School, High School for Europeans, High School at Taunggyi for the sons of Shan Chiefs, 5 Normal Schools, 15 Anglo-Vernacular High Schools, 18 Anglo-Vernacular Middle Schools and 44 Vernacular Middle Schools.

A remarkable feature of education in Burma is the system of elementary education evolved, generations ago, by the genius of the people. Nearly every village has a monastery (hpoongyi-kyauing) every monastery is a village school and every Burman boy has, according to his

religion, to attend that school, shaving his head and for the time wearing the yellow robe. At the hpoongyi kyauings the boys are taught to read and write and an elementary and native system of arithmetic. The result is that there are very few boys in Burma who are not able to read and write and the literacy of Burman men is 412 per mille.

Another feature of education in Burma is the excellent work of the American Baptist Mission which has established schools in most of the important towns in Burma as well as a College in Rangoon.

Medical.

The control of the Medical Department is vested in an Inspector General of Civil Hospitals. Under him are 41 Civil Surgeons. There is also a Sanitary Commissioner, two Deputy Sanitary Commissioners, an Inspector General of Prisons, three whole time Superintendents of Prisons, a Chemical Examiner and Bacteriologist and a Superintendent of the Lunatic Asylum.

A Civil Surgeon is in charge of each District, while at the summer Headquarters of Maymya there is a special Civil Surgeon.

The total number of Hospitals and Dispensaries was 270 at the end of March 1914. The Rangoon General Hospital is perhaps the finest in the East.

The Pasteur Institute was opened in Rangoon in July 1914. The Director is a Senior Member of the Indian Medical Service.

The total number of patients treated in 1913 was 1,614,460.

Administration.

Luxembourg Governor Sir Harcourt Butler, K.C.S.I. C.I.E. Appointed 1911.

Private Secretary H. C. Gaskell.

Aide de Camp C. J. Heath.

Honorary Aide-de-Camp Lt. Col. H. De Vries, C.I.E. 1A.

Indian Aides de Camp Bony (Capt. Muzaffar Khan), Sardar Bahadur Subadar Major Amrit Singh, Rai Bahadur.

LEGISLATIVE COUNCIL OF THE
LIEUTENANT-GOVERNOR

Officials

W. J. Keith.

Lt. Col. E. C. Townsend.

H. Thompson.

Walter Francis Rice, C.S.I. 1C8.

George Cooper Stawell.

John Guy Rutledge.

Non Officials

Mirwanjee Cowasjee.

Lim Chin Tsong.

Sao Mawng Oit.

Mirza Abdul Hussain, Khan Bahadur.

Mawng Mye.

Mauging Pu
Mauging Tun Myat
Arthur William Binning
J E Du Bern

SECRETARIAT

Chief Secretary W F Bice C I
Revenue Secretary W J Keith
Secretary C M. Webb
Secretary P W D G C Stawell A L
Joint Secretary P W D C H Wollaston
Financial Commissioner H Thompson
Senior Registrar A T Stuart

Miscellaneous Appointments

Settlement Commissioner and Director of Land
Records R E V Arbuthnot
Director of Agriculture H Clayton
Consulting Architect Edgar John Puller F R I B S
Superintendent and Political Officer Southern
Shan States C B Stirling
Superintendent and Political Officer Northern
Shan States H A Thornton
Director of Public Instruction J G Gwynne
Inspector General of Police Lt Col H Des
Voeux
Chief Conservator of Forests C G Rogers
Inspector General of Civil Hospitals Col A O
Evans
Sanitary Commissioner Lt Col C F Williams
Inspector General of Prisons Lt Col G J H
Dell

Commissioner of Excise Lt Col W E Stone
Chief Customs Authority Herbert Thompson
Accountant General L E Pritchard F Dukoff
Gordon (Offg)

Chief Commissioners of Burma

Lieut.-Colonel A P Phayre C B	1862
Colonel A Fytche C S I	1867
Lieut. Colonel R D Ardagh	1870
The Hon Ashley Eden C S I	1871
A R Thompson C S I	1875
C U Aitken C S I	1878
C E Bernard C S I	1880
C H T Crosthwaite	1883
Sir C E Bernard K C S I	1886
C H I Crosthwaite C S I	1887
A P MacDonnell C S I (a)	1888
Alexander Mackenzie C S I	1890
D M Smeaton	1892
Sir F W B Fryer K C S I	1895
(a) Afterwards (by creation) Baron MacDonnell	

Lieutenant Governors of Burma.

Sir F W B Fryer K C S I	1897
Sir H S Burnes K C S I K C V O	1903
Sir H T White K C S I	1905
Sir Harvey Adamson Kt K C S I LL L	1910
Sir Harcourt Butler K C S I C I E	1915

from Kusunda to Pathardi in 1885. In 1894 the output of all the mines in the district was only 126,688 tons. In 1895 it rose to 1,331,304 tons the enormous increase being almost entirely from the Jharia field. In the two succeeding years there was a set back, but from 1898 there was a steady rise in the output which first touched two million tons in 1901. In 1905 the output had swelled to nearly three million tons and in 1906 to nearly four millions. In 1907 over 5,800,000 tons were raised and in the following year no less than seven million tons. By 1914 the production of Indian coal had been raised to 16,404,000 tons valued at Rs. 588 lakhs. Of this total 26 per cent was raised in the Jharia fields and 30 per cent from the Raniganj coal fields of Bengal. The entrance of the Bengal Nagpur Railway in the Jharia field in 1904 and the subsequent extension of various small loops and branches besides innumerable sidings from both systems the doubling of the line from Barsakar to Dhanbad the opening of the section of the East Indian Railway of the Grand Chord from Dhanbad to Gomoh have all contributed to this rapid development. The tendency however which was manifest in 1907 and 1908 to open out new collieries has been checked. Giridih in Hazaribagh is also the centre of a considerable coal mining industry containing as it does mines owned and worked by the East Indian Railway Company. The Bokaro-Ramgarh field in the same district is likely to be of great economic importance as soon as the area is fully opened up by the railway now under construction. It immediately adjoins the Jharia field across the Hazaribagh border. There is a large undeveloped coal supply it is believed in the Districts of Palawan and Hazaribagh.

Administration.

The Province is administered by a Lieutenant Governor in Council. The Lieutenant Governor is appointed by the Crown and is a senior member of the Indian Civil Service. He is assisted by a Council of three members, two of whom are drawn from the Indian Civil Service while the third, in practice, is an Indian. Each member takes charge of departments and in the event of any difference of opinion regarding inter-departmental references the matter is decided in Council. In practice all important cases are submitted through the member concerned to the Lieutenant Governor.

The unit of executive administration is the District. The District Officer is styled District Magistrate and Collector except in the Scheduled districts where he is known as the Deputy Commissioner. The ordinary district jails are placed in charge of a Superintendent usually the Civil Surgeon while the Magistrate pays periodical visits of inspection. All District Officers are ex-officio Registrars and as ex-officio Chairmen of the District Boards they have control over elementary education, and are charged with the execution and administration of all local public works. In a word, the District Officer is the executive chief and administrator of the tract of country committed to him. As District Magistrate he is also local head of the magistracy who tries all cases, except the more

important which are sent for trial at the Sessions, but except in the Scheduled districts he seldom presides in Court, and his share in this part of the administration is practically confined to the distribution of work, the hearing of petty appeals and the general superintendence of his subordinates. The latter combine revenue with their magisterial functions and as Deputy Collector exercise under his control many of the powers of a Collector. The police, by whose aid he carries on the criminal administration, have as their local superior a Superintendent, who in all matters, except those concerning the discipline and internal economy of the force, has to carry out such instructions as he receives from the District Magistrate. The Sub-divisional Officers, who are Joint Assistant and Deputy Magistrates in charge of divisions of districts, occupy to a great extent, in their own jurisdictions, the position of the District Officer except in respect of the police over whom they have only judicial and no executive control. There are 21 Districts.

Above the District Magistrates are the Divisional Commissioners. Their duties are principally those of supervision. In almost all matters they exercise a general superintendence, and especially in the Revenue Department they control the Collectors' proceedings. Commissioners are the channels of communication between the local officers and Government, sifting collating and bringing together in a compact form the information they receive. In revenue matters the Commissioner forms a Court of appeal and in this and other respects is subject to the orders of the Board of Revenue. With this exception he is in subordination to Government direct.

The Civil Secretariat consists of the Chief Secretary who is in charge of the Judicial, Political, Appointment and Education Departments, the Revenue Secretary, the Financial and Municipal Secretary and their three Under Secretaries.

Finance

The Province of Bihar and Orissa was formed with five divisions, detached from the old province of Bengal with effect from the 1st April 1912. The old arrangements made with the Government of Bengal regarding the financial administration of the Province therefore ceased to apply from that date. A fresh arrangement has, however been made with the approval of the Secretary of State. As the method adopted was in some measure tentative and provisional a temporary settlement for a period of three years only has been effected. Owing to the war it has been found necessary to continue the provisional settlement for the present. Under the terms of this settlement the whole of the receipts under the heads of Provincial Rates, Forest, Registration, Courts of Law, Jails, Police, Ports and Pilots, Education, Medical have been made over entirely to the local Government together with their corresponding charges. In addition to these, it receives three-fourths of the receipts from stamps, assessed taxes major and minor irrigation works, the whole of the Land Revenue collected from Government Estates, one-half of the receipts under all other sub-heads creeping

recoveries from samindars and raiyats on account of survey and settlement in Bihar and other similar special surveys and the whole of the receipts under Scientific and other Minor Departments.

The only expanding items of revenue are Excise and Stamps. The Provincial Budget for 1914-15 shows an opening balance of Rs. 1,88,25,000 Receipts Rs. 2,97,13,000 Expenditure Rs. 8,87,75 and the closing balance Rs. 4,12,83,000

Public Works

The Public Works Department in the Province of Bihar and Orissa, consists of two branches viz—(1) Roads and Buildings, which also deals with Railways and Miscellaneous Public Improvement, and (2) Irrigation and Marine. Each branch has a Chief Engineer who is also Secretary to the Local Government with an Engineer Officer as Under Secretary under him. There is also a non professional Assistant Secretary a Consulting Architect and a Sanitary Engineer who works under the Sanitary Board. The electrical work of the Province is carried out by an Electrical Inspector and a staff of subordinates.

The Roads and Buildings branch consists of two Circles under the superintendence of two Superintending Engineers who control the Public Works Divisions held by the Executive Engineers for the execution of Imperial and Provincial works. The Superintending Engineers are also the Inspectors of Works under the Local Self Government Act, in respect of all local works of the District Boards and in this capacity are the professional advisers of the Chairman and of the Divisional Commissioners who control the operation of such Boards. They also supervise all works carried out by District Boards.

The Irrigation branch is composed of three Circles, each of which is held by a Superintending Engineer. In the Irrigation Circles the Executive Engineers carry out the works of the Roads and Buildings Branch within the limits of their divisions in addition to their irrigation duties. The Superintending Engineers of Irrigation Circles also act as Inspectors of Works in regard to local works in the districts in their Circles. In the Sone and Orissa Circles there are two Revenue Divisions under Deputy Collectors who deal with the assessment and collection of water rates on the Orissa and Sone Canals under the control of the Superintending Engineers.

Justice.

The administration of justice is at present entrusted to the High Court sitting in Calcutta but shortly jurisdiction will be transferred to a High Court at Patna the building for which is now in course of erection. In the administration of civil justice below the High Court are the District Judges as Courts of Appeal, the Subordinate Judges and the Munsifs. The jurisdiction of a District Judge or Subordinate Judge extends to all original suits cognisable by the Civil Courts. It does not however include the powers of a Small Cause Court, unless these be specially conferred. The ordinary jurisdiction of a Munsif extends to all suits in which the amount or value of the subject matter in dispute does not exceed Rs. 1,000

though the limit may be extended to Rs. 2,000. On the criminal side the Sessions Judge hears appeals from Magistrates exercising first class powers while the District Magistrate is the appellate authority for Magistrates exercising second and third class powers. The District Magistrate can also be, though in point of fact he very rarely is, a court of first instance. It is usual in most districts for a Joint Magistrate or a Deputy Magistrate to receive complaints and police reports, cases of difficulty or importance being referred to the District Magistrate who is responsible for the peace of the district. In the non regulation districts the Deputy Commissioner and his subordinates exercise civil powers and hear rent suits.

Local Self-Government.

Bengal Act III of 1884 which regulates the constitution powers and proceedings of Municipal bodies in this Province has been amended by the Bengal Acts IV of 1894 and II of 1896. By these enactments the elective franchise has been further extended, and now provides for the establishment and maintenance of veterinary institutions and the training of the regular staff, the improvement of breeds of cattle the training and employment of female medical practitioners the promotion of physical culture and the establishment and maintenance of free libraries. The Commissioners may order a survey and organise a fire brigade, they may control the water supply when its purity is suspected, even to the extent of interference with private rights larger powers of precaution are conferred in the case of ruined and dangerous houses and other erections, as well as increased optional powers for the general regulation of new buildings.

The total number of Municipalities at present in existence is 55 of which 6 were established during the last decade. The ratepayers of 48 Municipalities have been granted the privilege of electing two-thirds of the number of Commissioners fixed in each case, whilst in 24 cases the Commissioners are authorised to elect their own Chairman. In the remaining towns Government has reserved to itself the power of appointing the Commissioners or Chairman as the case may be owing either to the backwardness of the place or to the necessity for holding the balance against contending interests or strong party feeling. It is only in 7 towns, however that Government exercises complete control in the appointment of both Commissioners and Chairmen.

Apart from Municipalities each district with the exception of Santal Parganas and Singhbhum has District and Local Boards. Municipal areas are excluded in accordance with the provisions of section 1. Local Boards have been formed in all districts where there are subdivisions except in Champaran and Ranchi. There are at present 18 District Boards, 41 Local Boards and 9 Union Committees in the Province.

In accordance with the provisions of section 7 of the Act a District Board is to consist of not less than 9 members. Local Boards are entitled to elect such proportion (as a rule one-half) of the whole of the District Board as the Lieutenant-Governor may direct. In districts where there are no Local Boards, the whole of the members are appointed by Government. The

Chairman of the District Board is appointed by Government. He is usually the Magistrate of the district.

Land Tenures.

Estates in the Province of Bihar and Orissa are of three kinds. Permanently settled from 1793 to be divided in the Patna, Tirhut and Bhagalpur divisions. Temporarily settled as in Chota Nagpur and parts of Orissa and estates held direct by Government whether as proprietor or managed in the Court of Wards. The passing of the Bengal Tenancy Act (VIII of 1885) safeguarded the rights of the cultivators under the Permanent Settlement Act. Further the Settlement Department under the supervision of the Director of Land Records takes periodical survey and settlement operations in the various districts both permanently and temporarily settled. In the former the rights of the under tenants are accorded and attested while in the latter there is the re-settlement of rents. In the re-settlement proceedings rents are fixed not only of landlords but also for all the tenants. A settlement can be ordered by Government on application made by raiwats.

The tenures of Orissa are somewhat different under the zamindars that is the proprietors who took settlement from Government and pay revenue to Government direct, is a class of subordinate proprietors of proprietary, tenant holders who were originally village headmen dealing more or less direct with the revenue authorities. They have a variety of names such as *mukadams*, *padhans*, *maurais*, *subbarakars*, *parahis*, *khariadars* and *shikms* zamindar. These sub-proprietors or proprietary tenant holders pay their revenue through the landlords of the estates with in which their lands lie in Chota Nagpur Orissa and the Santal Parganas the rights of village headman have been recognised. The headman collects the rents and is responsible for their minor deduction as remuneration for his trouble.

Police

The Departments of Police, Prisons and Registration are each supervised and inspected by an Inspector General with a suitable staff of assistants under the general direction of Government. The Commissioner of Excise and Salt is also Inspector General of Registration.

Under the Inspector General of Police are three Deputy Inspectors General and 20 Superintendent. There are also 10 Assistant Superintendents of Police and 16 Deputy Superintendents. The force is divided into the District Police, the Railway Police and the Military Police. A Criminal Investigation Department has also been formed for the collection and distribution of information relating to professional criminals and criminal tribes whose operations extend beyond a single district and to control advise and assist in investigations of crime of this class and other serious cases in which its assistance may be invoked. There are two companies of Military Police which are maintained as reserves to deal with serious and organized disturbances and perform no ordinary civil duties. The work of the Railway Police is practically confined to offences actually committed on the railways, but they are under the control of the Deputy Inspector General of the Criminal Investigation

Department, and an important part of their duties is to co-operate with the District Police in watching the movements of bad characters by rail. The prevention and detection of crime in the Province generally is entrusted to the District Police. In that work they are assisted by the rural police known as *chakildars* and *dadardars*, who form no part of the regular force, but are under a statutory obligation to report all cognizable crime at the police station and generally to assist in the prevention and detection of crime. They are not whole time servants of Government but they are paid a small monthly salary which is realized from the villagers by the panchayat. The cost of the police is Rs. 46,48,000.

Education.

The Department of Public Instruction is controlled by a Director. There are four Divisional Inspectors of Schools one of whom in aspects European schools in addition to his own duties. 2 Additional Inspectors, 3 Assistant Inspectors including the Agency Inspector in Orissa, 4 special officers for Muhammadan Education, 24 Deputy Inspectors (exclusive of one in Native States), 180 Sub Inspectors (exclusive of five paid by Native States), 46 Assistant Sub Inspectors (exclusive of one paid by a Native State) and 590 Guru Instructors (exclusive of nine paid by Native States).

The main divisions of Educational Institutions are Primary, Secondary, Collegiate and Training.

The main object of Primary Schools is to provide the masses with sufficient knowledge of reading writing and arithmetic to secure them in their dealings with the money lender and zamindar or zamindar's underlings. Primary schools for Indian boys are of two classes Upper and Lower.

It is probable that there will eventually be a new University situated at Patna. The important Secondary Schools are the district or Zilla Schools to be found at the head-quarters of each district. The Higher English Schools which include private institutions as well as Government aided schools at sub divisional head-quarters and Middle English and Middle Vernacular Schools which are under the control of District Boards. The District and Local Boards are also responsible for Primary Education with the assistance of the expert advisers of the Education Department. There are at present seven colleges in the province—two at Patna, one at Bhagalpur one at Cuttack one at Hazaribagh (managed by the Dublin Mission) one at Murshidpur and a small College at Monghyr. The number of High Schools for Indian pupils under Public management is 21 with 6,800 pupils while 44 with 9,350 pupils are aided by public funds. There are 23,231 Primary schools with an attendance of 4,15,232 pupils. Of these, 18,802 are maintained or aided by public funds. The village schoolmaster or *guru* is now receiving special training. There are 130 Guru Training Schools for masters and 3 Training Schools for Mistresses. Other special institutions are 35 Industrial and Artisan Schools, two Commercial Schools and 14 Madrasas, where instruction is given in Arabic and Persian. The expenditure on public education from public funds amounts to Rs. 48,98,000.

Medical.

The Medical Department is under the control of the Inspector-General of Civil Hospitals who is a Member of the Indian Medical Service. Under him there are 20 Civil Surgeons who are responsible for the medical work of the districts at the head-quarters of which they are stationed. 60 Dispensaries are maintained by Government—

State Public	14
State Special Police	—3
State Canal	
State Others	8
Total	50

Besides these there are 299 Dispensaries maintained by Local bodies Railways, private persons etc. 159 416 patients including 46 421 in-patients were treated in 1914. There is one Lunatic Asylum and 8 Institutions for the treatment of lepers.

The Sanitation Department is in charge of the Sanitary Commissioner who is directly subordinate to Government as his expert adviser in regard to sanitation. There are three Deputy Sanitary Commissioners who work under the control of the Sanitary Commissioner. Vaccination is carried out by a staff under the direction of the Sanitary Commissioner. There is also a qualified Sanitary Engineer.

Administration

Lieutenant-Governor Sir Edward Gait K.C.B.
O.I.E. Assumed charge of office 19th November 1910

PERSONAL STAFF

Private Secretary J. C. B. Drake I.C.S.
Aide-de-Camp D. B. Cunningham, Indian Police
Honorary Aides-de-Camp Hon. Capt. Sardar Bahadur Hira Singh Subadar Major Sita Ram Singh, Lt. Col. V. N. Hickley V.D.
Major A. T. Peppe

EXECUTIVE COUNCIL

E. V. Loringe C.B.I. Took his seat, 1st August 1912
Maharaja Bahadur Sir Ramnagar Singh K.C.I.E.
of Barbhanga Took his seat 1st August 1912
Air William Vincent, R.N. Took his seat 19th November 1915

LEGISLATIVE COUNCIL

President, The Lieutenant-Governor
Vice-President, E. V. Loringe C.B.I.

Ex Officio

The Members of the Executive Council.

NOMINATED**Officials**

C. E. A. W. Oldham,
F. G. Jennings,
L. C. Adams,
S. P. Grooming,
E. H. C. Walsh,
G. L. Bealright.

H. Coupland
F. Clayton *
H. McPherson
Ahsan-ud-din Ahmed I.S.O.
E. L. Hammond
R. T. Dundas,
L. F. Morshead
J. R. F. Lowie,
F. F. Lyall

Non-Officials

Maharaja Bahadur Sir Ravaneswar Prasad
Singh, K.C.I.E.
Rai Bahadur Nisbi Kanta Sen
Madhu Sudan Das C.I.E.
Rev. A. Campbell O.D.

ELECTED

Keshari Prasad Singh,
Kumar Girija Nandan Singh
Kirtyanand Singh,
Raja Rajendra N. Banj Deo
Kumar Thakural G. Prasad Singh
W. A. Lee
T. B. Filgate C.I.E.
Sayid Fakhr-ud-din Khan Bahadur
Mahbub Hasan Khan Khan Bahadur
Sayid Muhammad Tahir
Khawaja Muhammad Nur
Blahon Prasad
Dwarka Nath Rai Bahadur
Uchumi Prasad Sinha
Nimal Charan Mitra,
Sherat Chandra Sen
Krishna Sahai Rai Bahadur
Brinja Kishor Prasad
Kumar Sheenandan Prasad Singh
Sudan Charan Nalk Rai Bahadur
Gopi Krishna

SECRETARIAT

Chief Secretary to Government Political Appointment and Educational Department H. McPherson
Secretary to Government Financial and Municipal Departments H. L. Hammond
Secretary to Government Revenue Department H. Coupland

Secretaries to Government (P. W. D.) Irrigation Branch F. Clayton

Buildings and Roads Branch G. J. Seadright

BOARD OF REVENUE

Member W. Maude.

Secretary J. A. Hubback

MISCELLANEOUS APPOINTMENTS

Director of Public Instruction, J. G. Jennings.
Inspector-General of Police, R. T. Dundas
Conservator of Forests, H. Carter
Inspector-General of Civil Hospitals, Vacant
Sanitary Commissioner, Lt.-Col. E. C. Hare I.S.S.
Inspector-General of Prisons, Lt.-Col. Bawa Jivan Singh
Accountant-General, V. C. Scott O'Connor
Director of Agriculture, G. Milne
Registrar of Co-operative Credit Societies, B. A. Collins.

The Central Provinces and Berar

The Central Provinces and Berar compose a great triangle of country midway between Bombay and Bengal. The area is 130,991 miles of which 92,000 are British territory proper and the remainder held by Feudatory Chiefs. The population (1911) is 13,916,208 under British administration and 2,11,002 in the Feudatory States. Various parts of the Central Provinces passed under British control at different times in the wars and tumult in the first half of the 19th century and the several parts were amalgamated after the Mutiny in 1861 into the Chief Commissionership of the Central Provinces. Berar was in 1853 assigned to the East India Company as part of a financial arrangement with the Nizam and was transferred to the Central Provinces in 1903 as the result of a fresh agreement with the Nizam.

The Country

The Central Provinces may roughly be divided into three tracts of upland with two intervening ones of plain country. In the north-west the Vindhyan plateau is broken country covered with poor and stunted forest. Below its precipitous southern slopes at etche the rich wheat growing country of the Narmada valley. Then comes the high Satpura plateau characterised by forest covered hills and deep water-cut ravines. Its hill declines into the Nagpur plain whose broad triches of shallow black cotton soil make it one of the more important cotton tracts of India and the wealthiest part of the C. P. The Eastern half of the plain lies in the valley of the Wainganga and is mainly a rice growing country. Its numerous irrigation tanks have given it the name of the 'lake country' of Nagpur. For the east is the far reaching rice country of Chhattisgarh in the Mahanadi basin. The south-east of the C. P. is again mountainous containing 24,000 square miles of forest and precipitous ravines and mostly inhabited by jungle tribes. The Feudatory States of Bastar and Kanker lie in this region. Berar lies to the south-west of the C. P. and its chief characteristics are its rich black cotton soil plains.

The People

The population of the province is a comparatively new community. Before the advent of the Aryans the whole of it was peopled by the Gonds and these aboriginal inhabitants fared better from the Aryans than their like in most parts of India by cause of the rugged nature of their home. But successive waves of immigration flowed into the province from all sides. The early inhabitants were driven into the inaccessible forests and hills where they now constituted a large portion of the tribes in those parts who form a quarter of the whole population of the C. P. The Gonds are still found in large numbers in all parts of the province but they are partially concentrated in the south-east. The main divisions of the new comers are indicated by the language divisions of the province. Hindi brought in by the Hindustani-speaking peoples of the North prevails in the North and East. Marathi in

Berar and the west and centre of the C. P. Hindi is spoken by 56 per cent of the population and is the *lingua franca*. Marathi by 31 per cent and in Berar and Gond by 7 per cent. The effects of invasion are curiously illustrated in Berar where numbers of Moslems have Hindu names being descendants of former Hindu officials who on the Mahomedan invasion adopted Islam rather than lose their positions. The recent census shows that a gradual Irishuaniing of the aboriginal tribes is going on. The tribes are not regarded as impure by the Hindus and the process of absorption is more or less civilising.

Industries.

When Sir Richard Temple became first Chief Commissioner of the C. P. the province was landlocked. The only road was that leading to from Jabalpur to Nagpur. The British administration has made roads in all directions the two trunk railways between Bombay and Calcutta run across the province and in the last few years a great impetus has been given to the construction of subsidiary lines. These developments have caused a steady growth of trade and have aroused vigorous progress in every department of life. The prime industry is of course agriculture which is related by one of the most admirable agricultural departments in India and is now receiving additional strength by a phenomenal growth of the co-operative credit movement. The land tenure is chiefly on the feudal or great landlord system ranging with numerous variations from the great Feudatory chiefships which are on this basis to holdings of small dimensions. A system of land legislation has gradually been built up to protect the individual cultivator. Berar is settled on the Lombay ryotwari system. Thirty-eight per cent or about 44,000 square miles of the C. P. is forest in Berar the forest area is 8,941 square miles. The rugged nature of the greater part of the country makes forest conservation difficult and costly. Excluding forest and wastes 87 per cent of the total land is occupied for cultivation in the most advanced districts the proportion is 80 per cent and in Berar the figure is also high. The cultivated area is extending continuously except for the temporary checks caused by bad seasons. Rice is the most important crop of the C. P. covering a quarter of the cropped area. What comes next with 154 per cent, then pulses and cereals used for food and oil seeds with 11 per cent and cotton with 7 per cent. In Berar cotton occupies nearly 40 per cent of the cropped area. Jowar covers an equal extent then wheat and oil seeds. In agriculture more than half the working population is female.

Commerce and Manufactures.

Industrial life is only in its earliest development except in one or two centres where the introduction of modern enterprises along the railway routes has laid the foundations for great future developments of the natural wealth of the province. Nagpur is the chief centre of

a busy cotton spinning industry. The Kim prom. Mills, owned by Parul manufacturers were opened there in 1877 and the general prosperity of the cotton trade has led to the addition of many mills here and in other parts of the province. The total output of spun yarn now amounts to approximately 50 million yards a year.

The largest numbers engaged in any of the modern industrial concerns are employed in manganese mining. Then follow coal mining the Jabulpore marble quarries and allied works the limestone quarries and the mines for pottery clay soapstone &c.

The total number of factories of all kinds legally so described was 438 in 1914 the latest period for which returns are available and the number of people employed in them 47,169. The same economic influences which are operative in every progressive country during its transition stage are at work in the C P and Berar gradually supplanting the strength of the old village industries as communications improve, and concentrating industries in the towns. While the village industries are fading away a large development of trade has taken place. The last available reports show an increase in volume by one third in eight years. In 1914 for the first time statistics for the Berar factories were incorporated with those of the C P.

Administration

The administration of the Central Provinces and Berar is conducted by a Chief Commissioner who is the controlling revenue and executive authority and is appointed by the Governor General in Council. He is assisted by three secretaries (two under secretaries and an assistant secretary). Simultaneously with the jubilee of the foundation of the Province in 1913 a Legislative Council was constituted. It consists of 24 members excluding the Chief Commissioner, being elected by municipal politics, District Councils and Landholders in the C P and 17 nominated by the Chief Commissioner of whom not more than 10 may be officials and 3 shall be non-officials chosen respectively by the municipalities, District Boards and Landholders of Berar. The Chief Commissioner may nominate an additional member official or non-official, who has special knowledge of a subject on which legislation is pending. The C P are divided for administrative purposes into four divisions and Berar constitutes another division. Each of these is controlled by a Commissioner. Berar is divided into six districts three other divisions into three districts each and one into three and these are controlled by Deputy-Commissioners immediately subordinate to the Commissioners. The principal heads of Provincial departments are the Commissioner of Settlements and Land Records the Inspector General of Civil Hospitals and Sanitary Commissioners the Inspector-General of Police the Inspector-General of Prisons the Director of Public Instruction the Commissioner of Excise and Miscellaneous Revenue and the Director of Agriculture and Industries. The Deputy-Commissioners of districts are the chief revenue authorities and District Magistrates, and they exercise the usual powers and functions of a district officer. The district

forests are managed by a forest officer, usually a member of the Imperial Forest Service over whom the Deputy-Commissioner has certain powers of supervision particularly in matters affecting the welfare of the people. Each district has a Civil Surgeon who is generally also Superintendent of the District Jail and whose work is also in various respects supervised by the Deputy-Commissioner. The Deputy-Commissioner is also marriage registrar and manages the estates of his district which are under the Court of Wards. In his revenue and criminal work the Deputy Commissioner is assisted by (a) one or more Assistant Commissioners or members of the Indian Civil Service (b) one or more Extra Assistant Commissioners or members of the Provincial Civil Service usually natives of India but including a few Europeans and Eurasians and (c) by tahsildars and naib tahsildars or members of the Subordinate service who are nearly always natives of India. The district is divided for administrative purposes into tahsils the average area of which is 1,500 square miles. In each village a *lan* bardar or representative of the proprietary body is executive headman.

Justice

The Judicial Commissioner is the highest court of civil appeal, and except in cases against European British subjects in which the High Court of Bombay has jurisdiction is the highest court of criminal appeal. He is assisted by an Additional Judicial Commissioner for the Central Provinces and another for Berar. The administration of criminal justice was formerly entirely in the hands of Commissioners and the District staff but Commissioners have now no criminal powers as such and their place as Sessions Judges has been taken by Divisional Judges. By the Civil Courts Act of 1904 the civil has finally been separated from the executive department. The civil staff consists of Divisional Judges District Judges, Subordinate Judges and Magistrates.

Local Government

Municipal administration was first introduced under the Punjab Municipal Acts and the Municipality of Nagpur dates from 1864. Several revising Acts extend its scope. Viewed generally municipal self-government is considered to have taken root successfully. The general basis of the scheme is the Local Board for each tahsil and the District Council for each district. In Berar these bodies are called Taluk Boards and District Boards. The larger towns have municipalities. A certain proportion of the Local Board members are village headmen elected by their own class, others are elected representatives of the mercantile and trading classes and a third proportion not exceeding $\frac{1}{4}$ of the whole are nominated by Government. The constitution of the District Councils is similar. The officers of the District Councils are frequently non-officials, but it is generally found convenient that the Tahsildar and Naib Tahsildar should be Chairman and Secretary of the Local Boards. The District Councils have no power of taxation and Local Boards derive their funds in allotments from the District Councils. Rural education and sanitation are among the primary objects to

The committee say The University which we propose will possess powers which will enable it to a high place in the administrative machinery of the Provinces. But administrative autonomy involves a certain measure of financial independence and we have made proposals accordingly. It is true that the University will be mainly dependent on the Government for financial support. Apart from fees the University at first at any rate will have no resources of its own. But we confess to a desire to see it vested with financial control over the grant which it receives from Government as well as over its other receipts. If we may be permitted to employ a simile the Government should regard the University as a business concern of which it is a shareholder with a seat on the Board of Directors rather than as a servant to whom it makes certain payment the disposal of which must be checked frequently and in detail.

We recommend that the administration of the University be vested in a Chancellor Vice-Chancellor Senate and Syndicate. The Chief Commissioner of the Province will be the Chancellor. The Vice-Chancellor will be an honorary officer nominated by the Chancellor. The Senate will be the supreme authority subject to the general control of the Government. It will be a body of 75 members consisting partly of representatives of Government and of the general public partly of elected representatives of the graduate and partly of teachers of the University and the constituent colleges the latter being nominated by the Chancellor. The Syndicate will be the executive of the University and will consist of the Vice-Chancellor the Director of Public Instruction a member of the Senate nominated by the Chancellor four Principals of colleges the Deans of the Faculties and three members elected by the Senate from among their own number of whom not more than one shall be a member of the teaching staff. The Chancellor nominee on the Syndicate should be a person possessed of general administrative experience. In both these bodies the members of the teaching staff will predominate.

After careful consideration we have arrived at the conclusion that a university possessing the wide administrative and educational powers which we propose must be governed by a body in which professional and expert opinion will predominate. This we think we have secured by giving the members of the teaching staff a predominant voice in the councils of the University.

We recommend that the University shall contain at its inception Faculties of Arts Law and Science and a department for the training of teachers subordinate to the Faculty of Arts. We have considered the question of establishing a Faculty of Agriculture but in view of the necessity which the Government Department of Agriculture feels of pursuing a tentative policy for some years to come with regard to agricultural education we feel that it would be inadvisable at the present juncture to suggest that the University should make provision for instruction in this branch knowledge. As to the Medical and Engineering

Schools they are designed to meet certain special needs and do not aim at providing courses of a University standard. It will be many years before the demand for higher courses will justify the establishment of Faculties in Medicine and Engineering.

Until recently the demand for education primary or secondary was satisfied by a few institutions in the larger towns while in the whole of the rural districts primary education had to be pressed on an apathetic and even obstructive agricultural population. The new spirit of progress in recent years has quickened the public pulse and the efforts of Government to effect improved facilities have responded accordingly. Special grants from the Government of India budget surpluses in recent years have largely been devoted to assisting the District Councils to overcome their arrears of primary school building. District Councils in general have showed their zeal for education to carry them into programmes of development beyond their means.

Medical

The medical and sanitary services of the province are respectively controlled by an Inspector General of Civil Hospitals and a Sanitary Commissioner the latter being assisted by a Sanitary Engineer. The medical department has progressed along comparatively stereotyped lines. A striking advance has been made in recent years with urban sanitation. The principal medical institutions are the Mayo Memorial Hospital at Nagpur opened in 1874 with accommodation for 80 inpatients the Victoria Hospital at Jabalpur opened in 1886 and accommodating 64 inpatients the Lady Dufferin Hospital at Nagpur and Raipur and the Lady Edin Hospital at Jabalpur these last three being for women and containing together accommodation for 14 inpatients. The province has two lunatic asylums at Nagpur and Jabalpur respectively. Vaccination is compulsory in some Municipal towns to which the Vaccination Act has been extended. The administration in 1913 sanctioned the opening of preparticid dispensaries in urban areas.

Administration.

Chief Commissioner Sir B. Robertson K.C.S.I.
(1st April 3rd Aug 1912)

Personal Assistant D. G. Watson.

Chief Secretary J. T. Marland M.A. I.C.S.

Registrar R. W. Johnson.

Secretary Public Works Department (Irrigation Branch) A. J. Wedley.

Financial Commissioner H. A. Crump.

Commissioner of Settlements and Director of Land Records H. E. Hemmingway I.C.S.

SECRET

Commissioner F. G. Sly C.S.I.

Members of Council.

NOMINATED MEMBERS

Mr Henry Ashbrooke Crump C.S.I. I.C.S.
Bertram Prior Standen, C.I.E. I.C.S.
John Thomas Martin L.C.S.
H. P. Ellwood Bell B.A. I.C.S.
John Hullah, I.C.S.

Mr Charles Stewart Endlaw I.C.S.	R. Temple (<i>Officiating</i>)	1868
Richard Hugh Tickell C.I.E. M.I.C.E.	Colonel E. K. Elliot	1863
Col George William Patrick Denny C.I.E.	J. B. Campbell (<i>Officiating</i>)	1864
M.E.	R. Temple	1864
Mr R. C. H. Moss King I.C.S.	J. S. Campbell (<i>Officiating</i>)	1865
Arthur James Mayhew	R. Temple	1865
Henry Edmund Hemingway I.C.S.	J. H. Morris (<i>Officiating</i>)	1867
NON-OFFICIALS	G. Campbell	1867
Raja Jawahir Singh of Varanagarh.	J. H. Morris (<i>Officiating</i>)	1868
Khan Bahadur Nawab Muhammad Salamullah Khan C.I.A.	Confirmed 27th May 1870	
Diwan Bahadur Seth Mr Kasturchand Dargi C.I.R.	Colonel R. H. Kintange C.S.I. (<i>Officiating</i>)	1870
Raj Bahadur Mr Bipin Krishna Lomani C.I.E.	J. H. Morris C.S.I.	1872
PROJECTED MEMBERS	C. Grant (<i>Officiating</i>)	1870
Mr Sheo Prasad Shrivastava B.A. LL.B.	J. H. Morris C.S.I.	1879
Raj Sahib Seth Bahadur B.A.	W. B. Jones C.S.I.	1888
Mr Surendhar Rao B.A. Barrister at Law	C. H. T. Crosthwaite (<i>Officiating</i>)	1884
Raj Sahib Mathura Prasad.	Confirmed 27th January 1885	
Rao Bahadur Narayan Rao Kikar	T. Fitzpatrick (<i>Officiating</i>)	1885
Raj Bahadur Bhagwan Dutt Chakul B.A.	J. W. Neill (<i>Officiating</i>)	1887
Raja Bahadur Raghooji Rao T. House	A. Mackenzie C.S.I.	1887
Rao Bahadur Ramnath Narasinha Mudholkar B.A. LL.B.	R. J. Crosthwaite (<i>Officiating</i>)	1889
Rao Bahadur Kishan Govind Dandi B.A. LL.D.	Until 17th October 1889	
Mr Moropant Vishwanath Joshi B.A. LL.B.	J. W. Neill (<i>Officiating</i>)	1890
MISCELLANEOUS APPOINTMENTS	A. P. MacDonnell C.S.I.	1891
Director of Public Instruction A. G. Wright M.A.	J. Woodburn C.S.I. (<i>Officiating</i>)	1893
Inspector-General of Police R. M. King I.C.	Confirmed 30th November 1893	
Chief Conservator of Forests Mountaineer Hill C.I.E. F.L.S.	C. J. Leah C.S.I. C.I.E.	1895
Inspector-General of Civil Hospitals Col C. W. P. Denny M.C.	D. C. J. Ibbetson C.S.I.	1898
Sanitary Commissioner Major T. G. Stokes M.C.	A. H. L. Fraser C.S.I. (<i>Officiating</i>)	1899
Commissioner of Excise etc A. Mayne I.C.S.	Confirmed 5th March 1900	
Comptroller (Financial Dept.) J. C. Miller	J. P. Hewett C.S.I. C.I.E. (<i>Officiating</i>)	1902
Postmaster-General H. A. Jones	Confirmed 2nd November 1903	
Director of Agriculture and Industries C. G. Lefevre I.C.S.	F. S. P. Lely C.S.I. (<i>Officiating</i>)	1904
Registrar of Co-operative Credit Societies, H. R. Crosthwaite	Confirmed 23rd December 1904	
CHIEF COMMISSIONERS	J. O. Miller C.S.I.	1905
Colonel E. K. Elliot	S. Lemay C.S.I. (<i>Officiating</i>)	1906
Lieut. Colonel J. K. Spence (<i>Officiating</i>)	Until 22nd October 1906	
	F. A. T. Phillip (<i>Officiating</i>)	1907
	Until 25th March 1907 Also from 20th May to 22nd November	1909
	R. H. Craddock C.S.I.	1907
	H. A. Crump (<i>Officiating</i>)	1912
	M. W. Fox Strangways C.S.I. (<i>Sub-pro tem</i>)	1912
	Sir B. Robertson K.C.S.I., C.I.E.	1912

North-West Frontier Province.

The North-West Frontier Province, as its name denotes, is situated on the north west frontier of the Indian Empire. It is in front an irregular strip of country lying north by east and south by west and may generally be described as the tract of country, north of Baluchistan, lying between the Indus and the Durand boundary line with Afghanistan. To the north it extends to the mountains of the Hindu Kush. From this range a long broken line of mountains runs almost due south, dividing the province from Afghanistan until the Sulaiman Range eventually closes the south of the Province from Baluchistan. The greatest length of the province is 418 miles, its greatest breadth 278 miles and its total area about 99,000 square miles. The territory falls into three main geographical divisions: the Cis Indus district of Hazara, the narrow strip between the Indus and the Hills containing the Districts of Peshawar, Kohat, Bannu and Dera Ismail Khan, and the rugged mountainous regions on the north and west between these districts and the border line of Afghanistan. Hazara and the four districts in the second division contain 13,418 square miles. The mountain regions north and west, are occupied by tribes subject only to the political control of the Chief Commissioner in his capacity as Agent to the Governor General. The area of this tract is roughly 25,500 square miles and in it are situated from north to south the political agencies severally known as the Malakand, Khyber, Kurram, Pochl and Wana Agencies. Each of the Deputy Commissioners of the five administered districts is responsible for the management of political relations with certain tribes or section of the tribes across the frontier. A few hundred miles of the trans-border territory are internally administered by the Political Agents but the bulk of the trans-border population is free from any internal interference so long as offences are not committed and so long as the tribes observe the conditions on which allowances are paid to many of them.

The area of the Province is a little more than half that of Bombay (excluding Sind and Aden) and amounts to more than three-fifths of the size of England without Wales. The density of population throughout the Province equals 98 persons to a square mile, but in the more favoured portions the pressure of population is much greater. In the Hazara District there are 207 persons to a square mile and in the trans-Indus plains tract the number is 152. The key to the history of the people of the N.W.F.P. lies in the recognition of the fact that the valley of Peshawar was always more closely connected politically with Eastern Iran than with India, though in pre-Mahomedan times its population was mainly Indian by race. Early history and the Iranians dominating the whole Indus valley. Then came the Greek invasion under Alexander the Great, in B.C. 327, then the invasions of the Sakas, and of the White Huns and later, the two great waves of Muhammadan invasion. Last came the Sikh invasion, beginning in 1818. The Frontier Territory was annexed by the British in 1849 and placed under the control of the Punjab Government. Frequent

warfare occurred with the border tribes but since the conclusion of peace with the Afghans in 1893 the whole border has been undisturbed except for the expedition against the Zakris Akhel Afghans in 1908.

The division of the Frontier Province from the Punjab was frequently discussed, with the double object of securing closer and more immediate control and supervision of the Frontier by the Supreme Government and of making such alterations in the personnel and duties of frontier officials as would tend to the establishment of improved relations between the local British representatives and the independent tribesmen. The province was eventually removed from the control of the Punjab administration in 1901. To it was added the political charge of Dir Swat and Chitral the Political Agent of which had never been subordinate to the Punjab. The new Province was constituted under a Chief Commissioner and Agent to the Governor General with headquarters at Peshawar in direct communication with the Government of India in the Foreign Department. In political questions there is no intermediary between the Chief Commissioner and the local officer, an arrangement designed to secure both prompt disposal of references and the utilisation of the expert knowledge of frontier conditions for which the head of the administration is selected.

The People

The total population of the N.W.F.P. (1911) is 3,910,027 made up as follows—

Hazara	603,028
Trans Indus Districts	1,593,900
Trans Border Area	1,822,094

This last figure is estimated. There are only 62.5 females per 1,000 males in the towns and 89.0 females per 1,000 males in rural areas. This disproportion of the sexes cannot at present be explained in the N.W.F.P. any more than in other parts of Northern India where it also appears. The discrepancy is greater here than in any other Province of India. There is no ground for believing that the neglect of girls in infancy has any effect in causing the phenomenon. On the other hand the female population has to face many trials which are unknown to men. The evils of unskilled midwifery and early marriage are among them. Both the birth and death rates of the Province are abnormally low. The birth rate in the administered districts according to the last annual official reports was 35.1 and the death rate 33.3. There were 122.5 male births for every 100 females. It is recognised that in this matter and in regard to population generally the registration of females may be defective inasmuch as the Pathan for whatever reasons, regards the birth of a daughter as a misfortune, the less said about which the better. The population is naturally increasing, but emigration reduces the net result.

The dominant language of the Province is Pashtu and the population contains several linguistic strains. The most important sections of the population both numerically and by social position, are the Pathans. They own

a very large proportion of the land in the administered districts and are the ruling race of the tribal areas to the west. There is a long list of Pathan Baluch Rajput and other tribal divisions. Gurkhas have recently settled in the Province. The Mahomedan tribes constitute almost the whole population Hindus amounting to only 5 per cent. of the total and Sikhs to a few thousands. The occupational cleavage of the population confuses ethnical divisions.

Under the North West Frontier Province Law and Justice Regulation of 1901 custom governs all questions regarding successions, betrothal marriage divorce the separate property of women dower, wills gifts partitions family relations such as adoption and guardianship and religious usages and institutions provided that the custom be not contrary to justice equity or good conscience. In these matters the Mahomedan or Hindu law is applied only in the absence of special custom.

Climate Flora and Fauna

The climatic conditions of the N W F P which is mainly the mountainous region but includes the Peshawar Valley and the riverine tracts of the Indus in Dera Ismail Khan District are extremely diversified. The latter district is one of the hottest areas of the Indian continent while on the mountain ranges the weather is temperate in summer and intensely cold in winter. The air is generally dry and hence the annual range of temperature are frequently very large. The Province has two wet seasons one the S W Monsoon season when moisture is brought up from the Arabian Sea and the Bay of Bengal the other in winter when storms from Mesopotamia Persia and the Caspian Districts bring widespread rain and snowfall. Both sources of supply are precarious and not infrequently either the winter or the summer rainfall falls almost entirely. The following description of the Daman the high ground above the Indus stretching across Dera Ismail Khan to the mountains on the west occurs in a account written some years ago by Captain Croft Waite. Men drunk once a day and the cattle every second day. Washing is an impossible luxury. It is possible in the hot weather to ride thirty miles and neither hear a dog bark nor see the smoke of a single fire.

With the exception of the Kunhar River in Hazara which flows into the Jhelum, the whole territory drains into the Indus. The flora of the Province varies from the shrubby jungle of the south-eastern plains to barren hills, pine forests and fertile mountain valleys. Tigers used to abound in the forests but are not quite extinct. Leopards hyenas wolves jackals and foxes are the chief carnivora. Bear deer and monkeys are found. A great variety of fish is caught in the Indus.

The mountain scenery is often magnificent. The frontier ranges contain many notable peaks of which the following are the principal: Takht-i-Sulaiman Sulaiman Range, in Dera Ismail Khan, 11,292 feet.

Pir Ghal, Sulaiman Range, in Mahsud Waziristan, 11,588 feet.

Sikka Ram, in the Saled Koh, in the Kurram Agency 15,621 feet.

Kagan Peaks of the Himalayas, in the Hazara District, 10,000 to 16,700 feet.

Istragh Peak (18,900 ft.) Kachin Peak 22,641 ft.) Tirich Mir (25,496 ft.) all in the Hindu Kush, on the northern border of Central Agency.

Trade and Occupations

The population lives its subsistence almost wholly from agriculture. The Province is practically without manufactures. There is no considerable surplus of commercial products for export. Any commercial importance which the province possesses it owes to the fact that it lies across the great trade routes which connect the trans-border tribal territories and the parts of Afghanistan and Central Asia with India but the influence of rail ways is diminishing the importance of these trading interests. The travelling traders (or Powindahs) from the trans frontier area have always pursued their wanderings into India and now instead of doing their trading in towns near the border carry it by train to the large cities in India. Prices of agricultural produce have in recent years been high but the agriculturists owing to the poverty of the means of communication have to some extent been deprived of access to Indian markets and have therefore been unable to profit by the rates prevailing. On the other hand high prices are a hard hip to the non agricultural classes. The effects of recent extensions of irrigation have been important. Land taxes are generally the same in the British administered districts as in the Punjab. The cultivated area of the land amounts to 32 per cent and uncultivated to 68 per cent.

The work of civilisation is now making steady progress. Relations with the tribes have improved trade has advanced, free medical relief has been vastly extended, police administration has been reformed and the desire of people for education has been judiciously and sympathetically fostered. In the British administered districts 10 per cent males and 7 per cent females of the total population are returned as literates. The figures for males denote a very narrow diffusion of education even for India. Those for females are not notably low but they are largely affected by the high literacy amongst Sikh women, of whom 13.3 per cent are returned as literate. The inauguration of a system of light railways throughout the Province apart from all considerations of strategy must materially improve the condition of the people and also by that means strengthen the hold of the administration over them. The great engineering project of the Upper Swat River Canal, which was completed in 1914 and the lesser work of the Kaharpur Canal also completed a year or two ago will bring ease and prosperity to a number of peasant homes. There has arisen in recent years the difficult question of the importation of thousands of rifles from the Persian Gulf. Elaborate measures were taken to stamp out the traffic, under the direction of the Naval Commander-in-Chief in the East Indies and with the tardy consent of France an agreement was made with the Sultan of Muscat to stop the trade in arms from that place Muscat having been the entrepot for the traffic.

Administration.

The administration of the North-West Frontier Province is conducted by the Chief

Commissioner and Agent to the Governor General in Council. His staff consists of—

- (1) Officers of the Political Department of the Government of India.
- (2) Members of the Provincial Civil Service.
- (3) Members of the Subordinate Civil Service.
- (4) Superintendents and Assistant Superintendents of Police.
- (5) Officers recruited for the service of departments requiring special knowledge—
Militia, Engineering, Education, Medicine and Forestry.

The cadre posts reserved for officers coming under the first head above are—

Administration	Chief Commissioner & Agent to the Governor General	5
	Secretary	
	Assistant Secretary	
	Personal Assistant	
	Revenue Commissioner and Revenue Secretary	
	Resident in Waziristan	1
	Deputy Commissioners	4
High Court and Divisional Judge.	Political Agents	4
	District Judges	4
	Assistant Commissioners and Assistant Political Agents	12
	One Judicial Commissioner	3
	Two Divisional and Sessions Judges	

The districts under the Deputy Commissioners are divided into from two to five sub-collectorates in charge of tahsildars who are invested with criminal and civil and revenue powers, and are assisted by sub-tahsildars, who exercise only criminal and revenue powers. Some sub-divisions are in charge of Assistant or Extra Assistant Commissioners. The village community characteristic of some parts of India is not indigenous among the Pathans. Its place as a social unit is to some extent taken by the tribe which is held together by the ties of kinship and ancient ancestry, rural or imaginary. Modern municipal local government has been introduced in the towns. There are also district boards. The district is the unit for police, medical and educational administration and the ordinary staff includes a District Superintendent of Police, a Civil Surgeon who is also the Superintendent of Jail and a District Inspector of Schools. The Province forms a single educational circle and only possesses one forest division that of Harara. There are four divisions of the Roads and Building Branch of the Public Works Department, each under an Executive Engineer. The Irrigation Department of the P.W.D. is in charge

of the Chief Engineer Irrigation Punjab who is also ex-officio Secretary to the Chief Commissioner. The administration of the civil police force of the districts is vested in an Inspector General. There is a special force of Border military police. The revenue and expenditure of the Province are wholly Imperial. Of the Agencies only Kurram and Tochi Valley pay land revenue to the British Government. The revenue administration of all five administered districts is controlled by the Revenue Commissioner. For the administration of civil and criminal justice there are two Civil and Sessions divisions, each presided over by a Divisional and Sessions Judge. The Judicial Commissioner is the controlling authority in the Judicial branch of the administration and his Court is the highest criminal and appellate tribunal in this Province. The principal officers in the present Administration are—

Agent to Governor General and Chief Commissioner Lieut.-Col. Sir G. O. Ross Koppel KCSI KCMG and Judge 4th June 1908
Resident, Waziristan Sir J. S. Donald CSI KCMG
Judicial Commissioner W. P. Barton CIE ICS
Revenue Commissioner Lieut.-Col. D. B. Blake way CIE ICS
Secretary to Chief Commissioner E. H. Keady Asst. Secretary to Chief Commissioner, C. Latimer
Indian Personal Asst. to Chief Commissioner Riazdar Moghal Bar Khan
Inspecting Officer Frontier Corps Lieut. Col. J. S. Kamball I.A.
Secretaries Public Works Department Col. W. J. D. Dundee CIE & W. Carue
Agency Surgeon and Administrative Medical Officer Lieut. Col. T. W. Irvine IMS
Divisional and Sessions Judges Lieut. Col. C. F. Minchin DSO I.A. & P. P. Renue

Political Agents

Major W. J. Keen, I.A. Dir. Swat & Chitral
S. E. Peats Khyber
J. A. O. Fitzpatrick Tochi
Major B. Garratt I.A. Kurram.
Inspector General of Police H. A. Close.
Director of Public Instruction J. A. Richey M.A.
Superintendent Archaeological Survey Sir M. A. Stein KCMG PhD Litt DSc

Former Chief Commissioners

Lieut.-Col. H. A. Deane, CSI Died 7th July 1908
W. B. H. Merit, CSI Officiating to 31st Oct 1910

The Province of Assam, 61,682 square miles in area, includes the Assam Valley Division, the Burma Valley and Hills Division and the State of Manipur. It owes its importance to its situation on the north-east frontier of India. It is surrounded by mountainous ranges on three sides while on the fourth (the west) lies the Province of Bengal on to the plains of which debouch the two valleys of the Brahmaputra and the Surma which form the plains of Assam. These two valleys are separated from each other by the Assam Range which projects westward from the hills on the eastern border.

Population

The total population of the province in 1911 was 7,069,847 of whom 1½ millions were Mahomedans, 3½ millions Hindus and 1½ millions Animists. 48 per cent of the population speak Bengali, 22 per cent speak Assamese, other languages spoken in the province are Hindi, Uriya and a great variety of languages classified under the general heading of the Tibeto-Chinese languages. Owing to the great areas of waste and rivers the density of the province is only 115 which compared with that of most other parts of India, is low but is more than double that of Burma.

Agricultural Products.

If we have agricultural advantages for which it would be difficult to find a parallel in any part of India, climate, soil, rainfall and rivers, terms all being alike favourable to cultivation. Rice is the staple food crop about 4 million acres being devoted to this crop. Except in the Himalayan Terai irrigation is unnecessary. Jute and tea are the most important crops grown for export, the area under jute being generally about 40,000 acres that under tea about 170,000 acres. In 1914 the total number of tea gardens was 792 the production being estimated at 204,27,000 lbs. Wheat and tobacco are also grown and about 10 square miles are devoted to sugarcane. The total area of reserved forest is about 578 square miles and the unclassified state forests cover about 18,509 square miles.

Meteorological Conditions.

Rainfall is everywhere abundant and ranges from 93 to 124 inches. The maximum is reached at Cherrapunji in the Khasi Hills, which is one of the wettest places in the world having a rainfall of 459 inches. The temperature ranges from 59° at Sibsaigar in January to 84° in July. Earthquakes of considerable severity have taken place, by far the worst being that which occurred in 1897.

Land Tenures.

Most of the actual cultivators of the soil usually hold direct from the State, and the area of land on which rent is paid is considerable. A large part of Goalpara and of the more densely populated portions of Sylhet was however included in the permanent settlement of Bengal, and the system of land tenure in Cachar and the existence of large estates on privileged rates of revenue in Kamrup have tended to produce a tenant class which at the 1901 census amounted to more than one-third of the total number of persons supported by agriculture. In the 1911 census a very marked

increase in tenancy throughout the Province is shown.

The Assam Labour and Emigration (Amendment) Bill was passed on the 24th March 1915. The Act carries with it the abolition of the recruiting contractor and the creation of Labour Bureau to supervise recruiting.

Mines and Minerals.

The only minerals in Assam worked on a commercial scale are coal, limestone and petroleum oil. The most extensive coal measures are in the Naga Hills district, where about 800,000 tons are raised annually and used mainly by the river steamers. There has been a very marked rise in recent years in the price of Assam coal which rose from under Rs. 6 per ton in 1912 to Rs. 7 in 1914. Limestone is quarried in the Khasi and Jaintia Hills in Sylhet and in the Garo hills. 108,431 tons were quarried in 1914. Petroleum is worked only in Lalimpur, the oil is rich in paraffin and the chief products are light naphtha, kerosene and wax. The oil is sold locally and the wax is exported mainly to England. Lubricating oil is produced on the southern slopes of the Khasi Hills. The total output of oil from the wells was in 1914 over 4,628,000 gallons valued at Rs. 2,31,980.

An account of the petroleum occurrences in Assam was recently published in the memoirs of the Geological Survey of India. It states that the petroleum localities in this province are confined to a curved belt of country along the basins of the Brahmaputra and Surma. This belt is traceable over a distance of some 800 miles from N.E. Assam through Cachar and Chittagong to the Arakan coast, where it has a S.W. trend. It is roughly concentric with the trend of the Burmese oil belt to the south, the two varying from 70 to 100 miles. Various parts of the Assam Cachar Chittagong Arakan belt have been exploited in a primitive way but there are only two properly worked fields of commercial importance, viz., those of Digboi and Bappa Fung, two localities only about a mile apart in N.E. Assam.

Manufactures.

Silk is manufactured in the Assam Valley the weaving being done by the women. Cotton weaving is also largely practised by the women and almost every house contains a loom, the cloth is being gradually displaced by imported goods of finer texture and colour. Boat building, brass and metal and earthenware tea manufacture and limestone burning are the other industries apart from agriculture, which itself employs about 84 per cent of the population. Assam carries on a considerable trade with the adjoining foreign tribes and countries. In 1913-14 the value of frontier trade registered was nearly Rs. 36 lakhs. Trade with Bhutan increased but imports from all other hill tribes decreased mainly owing to the discontinuance of returns of imported rubber.

Communications

The trade of Assam is chiefly carried by river, but increasing use is being made of the Assam Bengal Railway which runs from the port of Chittagong to Silchar at the eastern

end of the Burma Valley. A branch of that line runs along the south of the Assam Valley from Gauhati to Tinsukia a station on the Dibru Sadhya Railway and is connected with the Burma Valley branch by a line that pierces the North Cachar Hills the points of junction being Lumding in the northern and Badarpur in the southern valley. The Eastern Bengal State Railway connects Assam with the Bengal system via the valley of the Brahmaputra. The excellence of its water communication makes Assam less dependent upon roads than other parts of India but in recent years the road system has been developed and there is a trunk road through the whole length of the Brahmaputra Valley and an excellent road from Gauhati to Shillong. A large fleet of steamers maintained by the India General Steam Navigation Company and the Rivers Steam Navigation Company ply on the rivers of both valleys. A daily service of passenger boats runs from Goalundo to Dibrugarh.

Finance.

Gross receipts in 1913-14 rose from Rs. 1,60,42,686 to Rs. 1,60,04,371 and gross expenditure from Rs. 1,44,18,765 to Rs. 1,88,79,568. The provincial account opened with a balance of Rs. 78,06,494, which included Imperial assignments for various purposes aggregating Rs. 48,50,000. Receipts amounted to Rs. 1,60,28,700 and expenditure to Rs. 1,82,06,971. Further Imperial assignments amounting to Rs. 5,13,000 were received during the year and with the unspent balance of the former assignments accounted for Rs. 36,93,000 out of the closing balance of Rs. 55,56,223.

Education.

The latest census report shows that there are in the Province at present 4,118 educational institutions including two Arts Colleges with 168,350 pupils. Of the total population 353,672 are returned as literate. The distribution of literacy naturally varies considerably throughout the Province. The large number of immigrant coolies and of aboriginal tribes tends to lower the proportion of literates in the Brahmaputra Valley and a comparatively high standard of literacy in the Hills is due mainly to the progress of education amongst the Khasis of whom a large proportion have been converted to Christianity. Amongst the Akaikhas in the Hills the Lisakhs seem to have an extraordinary keenness for learning which is the more remarkable because the administration of their district dates from quite recent times. There are 4,578 public and private educational institutions with 215,141 pupils in the province.

Administration.

The province of Assam was originally formed in 1874 in order to relieve the Lieutenant-Governor of Bengal of part of the administration of the huge territory then under him. In 1905 as the result of further delimitations it was decided to add to the small Province of Assam the eastern portion of its unwieldy neighbour and to consolidate those territories under a Lieutenant-Governor. The Province of Eastern Bengal and Assam as then constituted was again broken up on the 1st of April, 1912 the Eastern Bengal Districts

were united with the Bengal Commissionership of Burdwan and the Presidency to form the Presidency of Bengal under a Governor in Council. Bihar, Chota Nagpur and Orissa were formed into a separate province while the old Province of Assam was re-constituted under a Chief Commissioner.

The capital is Shillong a town laid out with great taste and judgment among the pine woods on the slopes of the Shillong Range which rises to a height of 6,450 feet above the sea. It was destroyed in the earthquake of 1897 and has been rebuilt in a way more likely to withstand the shocks of earthquake.

Chief Commissioner Sir Archdale Earle K.C.I.E.

appointed 1st April 1912

Personal Asst. R. C. K. Cumming

Chief Secretary B. C. Allen

Second Secretary A. W. Botham

Secretary Public Works Department, F. O. Oertel

Officiating Inspector General of Registration —

R. N. Mackenzie I.C.S.

Judges P. J. Jeffries J. F. Graham

Director of Public Instruction J. R. Cunningham.

Inspector General of Forests Lt.-Col. A. E. Woods

Sanitary Commissioner Major T. C. M. Young

M. B. M. C.

Comptroller Financial Department W. A. T.

Caraduff

Posthead Agent in Manipur Lt.-Col. H. W. G.

Cole C.S.I.

Superintendent and Membrane of Legal

Affairs — Abdul Majid B.A.

Director of Land Records and Agriculture A. R.

Edwards B.A. I.C.S.

Superintendent, Archaeological Survey Eastern

Circle D. B. Spooner

Chief Inspector of Factories R. P. Adams

LEGISLATIVE COUNCIL

F. O. Oertel, W. J. Reid, Lieut. Colonel D.

Herbert J. R. Cunningham M.A. J. F. Graham

Abdul Majid A. B. Hawkins Raja Prabhat

Chandra Barua, Ramani Mohan Das, Srijit

Padmalath Barua Col. H. E. Banatvala

B. C. Allen A. W. Botham

Elected Members

Mr. C. L. Pringle Maulvi Saliyid Abdul

Majid Khan Bahadur Maulvi Saliyid Mubha

muhammad Saadulla Pabu Mallini Kanta Ray

Davindar Rai Bahadur, Mr. Tarun Ram

Phukan, Mr. Kamini Kunwar Chandra, Shri

Mohan Das Rai Bahadur Mr. A. L. Playfair

Mr. H. Miller, Mr. B. B. Fox

Chief Commissioners of Assam

Colonel R. H. Keatinge C.S.I. 1874

Sir S. C. Bayley K.C.B.I. 1878

C. A. Elliot C.S.I. 1881

W. E. Ward 1886

Dennis Fitzpatrick C.S.I. 1883

J. Westland, C.S.I. 1887

J. W. Quilton C.S.I. 1889

Brig.-General Sir H. Collett K.C.B. 1891

W. E. Ward C.S.I. 1891

C. J. Lyall C.S.I. 1894

H. J. S. Cotton C.S.I. 1896

J. B. Fuller C.S.I. 1900

J. B. Fuller C.S.I. 1902

C. W. Bolton, C.S.I. 1908

Note.—The Chief Commissionership of Assam

was revived 1st April, 1912

Sir Archdale Earle, K.C.I.E. 1912

Baluchistan.

Baluchistan is an oblong stretch of country occupying the extreme western corner of the Indian Empire. It is divided into three main divisions (1) British Baluchistan with an area of 9,478 square miles consisting of tracts assigned to the British Government by treaty in 1879, (2) Agency Territories with an area of 44,345 square miles composed of tracts which have from time to time been acquired by lease or otherwise brought under control and placed directly under British officers, and (3) the Native States of Kalat and Las Bela with an area of 75,434 square miles. The Province embraces an area of 134,638 square miles and according to the census of 1911 it contains 834,703 inhabitants divided roughly half and half between the administered districts and States.

The country which is almost wholly mountainous lies on a great belt of ranges connecting the Safed Koh with the hill system of Southern Persia. It thus forms a watershed the drainage of which enters the Indus on the east and the Arabian Sea on the south while on the north and west it makes its way to the inland lakes which form so large a feature of Central Asia. Pugged barren sur burnt mountain rent by high chasms and gorges alternate with arid deserts and stony plains the prevailing colour of which is a monotonous sight. But this is redeemed in places by level valleys of considerable size in which irrigation enables much cultivation to be carried on and rich crops of all kinds to be raised.

The political connection of the British Government with Baluchistan commenced from the outbreak of the First Afghan War in 1839. It was traversed by the Army of the Indus and was afterwards occupied until 1842 to protect the British lines of communication. The districts of Kachi, Quetta and Mastung were handed over to the Amir of Afghanistan and Political Officers were appointed to administer the country. At the close of the First Afghan War the British withdrew and these districts were assigned to the Khan of Kalat. The founder of the Baluchistan Province as it now exists was Sir Roberts Sandeman who broke down the close border system and welded the Baluch and Brahui Chiefs into a close confederacy. In the Afghan War of 1879 Pishin, Sibi, Harnai and Thal Chotiali were handed over by Yakub Khan to the British Government and retained at Sir Robert Sandeman's strenuous insistence.

Industries

Baluchistan lies outside the monsoon area and its rainfall is exceedingly irregular and scanty. Shahrigh which has the heaviest rainfall, records no more than 11½ inches in a year. In the highlands few places receive more than 10 inches and in the plains the average rainfall is about 5 inches decreasing in some cases to 3. The majority of the indigenous population are dependent for their livelihood on agriculture, provision and care of animals and transport. The Afghans and the Baluch as a rule, cultivate their own lands. The Brahuis dislike agriculture and prefer a pastoral life. Previous to the advent of the British life and

property were so insecure that the cultivator was fortunate if he reaped his harvest. The establishment of peace and security has been accompanied by a marked extension of agriculture which accounts for the increase in the numbers of the purely cultivating classes. The Makran Coast is famous for the quantity and quality of its fish and the industry is constantly developing. Fruit is extensively grown in the highlands and the export is increasing.

Education is imparted in 157 schools with 4,129 scholars. The mineral wealth of the Province is believed to be considerable, but cannot be exploited until railways are developed. Coal is mined at Khosh on the Sind Pishin railway and in the Bolan Pass. The output in 1914 being 8,24 tons. Chromite is extracted in the Quetta Pishin District. Lime stone is quarried in small quantities.

Administration

The head of the local administration is the officer styled Agent to the Governor General and Chief Commissioner. Next in rank comes the Revenue Commissioner who advises the Agent to the Governor General in financial matters and generally controls the revenue administration. The keynote of administration in Baluchistan is self-government by the tribesmen as far as may be by means of their Jirgas or Councils of Elders along the ancient customary lines of tribal law the essence of which is the satisfaction of the aggrieved and the settlement of the feud not retaliation on the aggressor or the vindictive punishment of a crime. The district levies which number 2,300 odd play an unobtrusive but invaluable part in the work of the Civil Administration not only in watch and ward and the investigation of crime but also in the carrying of the mails, the serving of process and other miscellaneous work. In addition to these district levies there are three irregular Corps in the Province, the Zhob Militia (formerly known as the Zhob Levy Corps), the Makran Levy Corps and the Chagal Levy Corps. Their combined strength in the latest returns was 103 cavalry and 892 infantry. The Province does not pay for itself and receives large subsidies from the Imperial Government. The receipts and expenditures roughly balance each other at 2½ lakhs.

ADMINISTRATION

Agent to the Governor-General and Chief Commissioner. The Honble Lieut. Colonel Sir John Ramsay, K.C.B. C.B. I.A.
Revenue and Judicial Commissioner, Lieut. Colonel C. Archer, C.B. I.C.E.
Secretary Public Works Department, Lieut. Colonel H. S. Murray, R.E.
First Assistant to the Agent to the Governor-General and Secretary to the Chief Commissioner. Bray Darya do S. I.O.S.
Second Assistant to the Agent to the Governor-General. A. N. L. Cater, I.C.S.
Political Agent, Zhob. Jacob Major, A. L., I.A.
Assistant Political Agent, Zhob, Capt. T. G. M. Harris.
Political Agent, Kalat and Bolan Pass, Dew, Lieut. Colonel A. B. C.I.E., I.A.

Assistant Political Agent Kalat and Bolan Pass
C H Gidney I.C.S.

Assistant for Mahran to the Political Agent in Kalat and ex-officio Commandant, Mekran Levy Corps Captain S W Williams I.A.

Political Agent and Deputy Commissioner Quetta and Peshawar Lieut. Colonel A McConahey O.L.E.

Assistant Political Agent and Assistant Commissioner Quetta and Peshawar Major H B Sh. John C.I.E., I.A.

Political Agent, Chagaz Major W G Hutchingson I.A.

Political Agent and Deputy Commissioner Sibi Major F McConaghey

Assistant Political Agent Sibi Major C E Bruce I.A.

Political Agent, Loralai Major A D G Ramsay

Assistant Political Agent Loralai Vacant

Residency Surgeon and Chief Medical Officer Duke Lieut. Colonel A. L. I.C.S.

Civil Surgeon Quetta Major W A Anderson

ANDAMAN AND NICOBAR ISLANDS.

This is a group of islands in the Bay of Bengal of which the headquarters are at Port Blair by sea 780 miles from Calcutta 740 miles from Madras and 360 miles from Rangoon with which ports there is regular communication.

The land area of the islands under the administration is 8143 square miles, namely 2,506 square miles in the Andamans and 555 square miles in the Nicobars. The total population of the islands was returned in the census of 1911 as 24,459. The islands are administered by the Chief Commissioner of the Andaman and Nicobar Islands who is also the Superintendent of the Penal Settlement. The penal settlement, which was established in 1858, is the most important in India.

Superintendent of Port Blair Lieut.-Col M W Douglas, C.I.E.

Commandant and District Superintendent of Military Police Captain H W Rowlandson

Medical Superintendent of Isals and Senior Medical Officer Major J H Murray I.M.S.

COORG

Coorg is a small petty Province in Southern India west of the State of Mysore. Its area is 1,582 square miles and its population 174,976. Coorg came under the direct protection of the British Government during the war with Sultan Tipu of Seringapatam. In May 1834 owing to misgovernment it was annexed. The Province is directly under the Government of India and administered by the Chief Commissioner of Coorg who is the Resident in Mysore with his headquarters at Bangalore. In him are combined all the functions of a local government and a High Court. The Secretariat is at Bangalore where the Assistant Resident is styled Secretary to the Chief Commissioner of Coorg. In Coorg his chief authority is the Commissioner whose headquarters are at Mercara and whose duties extend to every branch of the administration. The chief wealth of the country is agriculture and especially the growth of coffee. Although owing to over production and insect pests coffee no longer commands the profits it once enjoyed the Indian output still holds its own against the severe competition of Brazil. The bulk of the output is exported to France.

Resident and Chief Commissioner Coorg The Hon. Lt. Col. Sir Hugh Daly K.C.I.E.

AJMER MERWARA.

Ajmer Merwara is an isolated British Province in Rajputana. The Agent to the Governor-General in Rajputana administers it as Chief Commissioner. The Province consists of two small separate districts, Ajmer and Merwara with a total area of 2,711 square miles and a population of 301,395. At the close of the Pindari war Daulat Rao Scindia by a treaty dated June 25 1818 ceded the district to the British. Fifty-five per cent of the population are supported by agriculture, the industrial population being principally employed in the cotton and other industries. The principal crops are maize, millet, barley, cotton, oil seeds and wheat.

Agent to the Governor-General in Rajputana and Chief Commissioner of Ajmer Merwara The Hon. Lieut. Col. Sir E. G. Colvin K.C.S.I.

Aden was the first new territory added to the Empire after the accession of Queen Victoria. Its acquisition in 1839 was the outcome of an outrage committed by the local Fadhil chief upon the passengers and crew of a British brig galew wrecked in the neighbourhood. Various acts of treachery superseding the negotiations regarding the unprovoked outrage and Aden was captured by a force sent by the Bombay Government under Major Laillie. The act has been described as one of the opportunist political strokes which have given geographical continuity to British possessions scattered over the world.

Aden is an extinct volcano five miles long and three broad jutting out to sea much as Gibraltar does having a circumference of about 15 miles and connected with the mainland by a narrow isthmus of flat ground. This is nearly covered at one part at high spring tides but the causeway and aqueduct are always above though sometimes only just above water. The highest peak on the wall of precipitous hills that surrounds the old crater which constitutes Aden is 1775 feet above sea level. Rugged spurs with valleys between radiate from the centre to the circumference of the crater. A great gap has been rent by some volcanic disturbance in the surface of the circle of hills and this opens to the magnificent harbour. The peninsula of Little Aden adjacent to Aden proper was obtained by purchase in 1864 and the adjoining tract of Shaikh Othman 34 square miles in extent was subsequently purchased when in 1882 it was found necessary to make provision for an ever flowing population.

Attached to the settlement of Aden are the islands of Perim an island of 5 square miles extent in the Straits of Bab-el Mandeb in the entrance to the Arabian Sea Sokatra island at the entrance to the Gulf of Aden in the Arabian Sea acquired by treaty in 1889 and 1722 miles in extent and the five small Kuma Murin islands ceded by the Imam of Maskat in 1854 for the purpose of landing the Red Sea cable and otherwise valuable only for the guano deposit found upon them. They are off the Arabian coast about two thirds of the way from Aden to Maskat. The whole extent of the Aden settlement including Aden Little Aden Shaikh Othman and Perim is approximately 80 miles. The 1911 census shows Aden with Little Aden Shaikh Othman and Perim to have a population of 46167. The population of Perim is a matter of a few hundreds largely dependent on the Coal Depot maintained there by a commercial firm. That of Sokatra is 12000 mostly pastoral and migratory inland fishing on the coast.

Strategic Importance

Aden's first importance is as a naval and military station of strategic importance. This aspect was ably discussed by Colonel A. M. Murray in his Imperial Outposts. He points out that Aden is not a naval base in the same sense that Gibraltar Malta and Hong Kong were made but a point *d'appui* a rendezvous and striking point for the fleet. It was seized in 1839 because of its usefulness as a harbour of refuge for British ships and from a strategist's point of view this is its primary purpose and the reason *d'être* of its forts and garrison. Aden

under British rule has retained its ancient prestige as a fortress of impregnable strength, invulnerable by sea and by land dominating the entrance to the Red Sea and valuable to its owners as a commercial emporium a port of call and a cable centre. The harbour extends 5 miles from east to west and 4 from north to south and is divided into two bays by a spit of land. The depth of water in the western bay is from 3 to 4 fathoms across the entrance 4 to 7 fathoms with 10 to 12 fathoms 2 miles outside. The bottom is sand and mud. There are several islands in the inner bay. Strategic control of the Red Sea was rendered complete by the annexation of Perim and Sokatra which may both be regarded as outposts of Aden and are under the political jurisdiction of the Resident.

The Arab chiefs of the hinterland of Arabia are nearly all stipendiaries of the British Government. Colonel Wahab and Mr G. H. Fitzmaurice of the Constantinople Embassy were appointed in 1902 as Commissioners to delimitate the frontier between Turkish Arabia and the British protectorate around Aden. A convention was signed in 1914 settling details, the frontier line being drawn from Shaikh Murad a point on the Red Sea coast opposite Perim, to the bank of the river Dana the eastern limit of Turkish claims at a point some 40 miles north-east of Dhala and thence north-east to the great desert. The area left within the British Protectorate was about 9,000 square miles. The arrangement gave to Turkey (a) Bab-el Mandeb which forms the Arabian bank of the eastern channel past Perim into the Red Sea from the Turkish coast in November 1914. (b) a cantonment and small British garrison used to be maintained at Dhala which is 7,700 feet high, but the garrison was withdrawn in 1906. Lord Morley explaining the step as being in accordance with the policy stated in the House of Lords in 1903—that His Majesty's Government had never desired to interfere with the internal and domestic affairs of the tribes on the British side of the boundary but had throughout made it plain that they would not assent to the interference of any other Power with those affairs.

British Policy

There has been much criticism of a policy under which Aden has failed to advance with the same progressive strides which have marked the development of other British dependencies. It is said that the former Persian possessors of Aden built its wonderful water tanks, and the Arabs made an aqueduct 20 miles long while the British have done nothing except mount guns to protect their coal yards. Trade it is argued flourishes because this is a natural emporium of commerce but not because of the attention its needs get from Government. Lord Roberts, writing on this point a few years ago said "It is not creditable to British rule to make use of a dependency like Aden for selfish purposes of political necessity without attempting to extend the benefits of civilised Government to the neighbouring native tribes, especially when those tribes are living under the aegis of the British Crown. The Persians, the Turks and even the Arabs did more for Aden in

their time than we have done during our seventy years' occupation. Aden has always suffered under the disadvantage of being an appendage of the Bombay Presidency, with which it has neither geographical, racial nor political affinity. Probably the best solution of the matter would be to hand over the place to the Colonial Office relieving the Government of Bombay of a charge which is only looked upon as an incubus. Some important steps have been taken in the past few years to satisfy the commercial needs of the port.

Trade.

The trade of Aden has developed immensely since British acquisition in 1839, largely through the Government of India declaring it a free port in 1850 since when it has attracted much of the valuable trade between Arabia and Africa, formerly monopolised by the Red Sea ports of Hodeida and Mokha. The opening of the Suez Canal was also responsible for a large increase of trade through Aden into the interior. The total imports by sea in the last official year (1913-14) before the war set the course of progress away amounted to £1,756,964 by land £170,213. Exports, £450,204 by sea, were £3,267,234 by land, £140,150. Exports of Government stores and treasure £741,687. These statistics are exclusive of

The language of the settlement at Aden is Arabic but several other Asiatic tongues are spoken. The population is chiefly returned as Arabs and Shaikhs. The Somalis from the African coast and Arabs do the hard labour of the port. So far as the settlement is concerned there are no products whatever with the important exception of salt. The crops of the tribal low country adjoining are lower sesamum, a little cotton madder, a bastard saffron and a little indigo. In the hills, wheat, madder, fruit, coffee and a considerable quantity of wax and honey are obtained. The water supply forms the most important problem. Water is drawn from four sources—wells, aqueducts, tanks or reservoirs and condensers.

Administration.

The Aden settlement is subject politically to the Government of Bombay and its administration is conducted by a Resident who is assisted by four Assistants. The Resident is also military Commandant and is usually an officer selected from the Indian army as are his assistants. The Resident has jurisdiction as a Judge of the Vice-Admiralty Court in matters connected with slave trading his court being called the Colonial Court of the Admiralty. The laws in force in the settlement are generally speaking those in force in the Bombay Presidency supplemented on certain points by special regulations to suit local conditions. The management of the port is under the control of a Board of Trustees formed in 1888. The principal business of the Port Trust has been the deepening of the harbour so as to allow vessels of all sizes to enter and leave at all states of the tide. The

Aden police force numbers slightly over 200 men. There are hospitals and dispensaries in both Aden and Perim in addition to the military institutions of this character. The garrison comprises a troop of engineers, three companies of garrison artillery, one battalion of British infantry, two companies of sappers and miners and one Indian regiment. Detachments from the last named are maintained at Perim and Shaikh Othman respectively.

The average temperature of the station is 81 degrees in the shade the mean range being from 76 in January to 98 in June with variations up to 102. The lulls between the monsoons in May and September are very oppressive. Consequently long residence impairs the faculties and undermines the constitution of Europeans and even Indians suffer from the effects of too long an abode in the settlement and troops are not posted in the station for long periods being usually sent there one year and relieved the next. But Aden is exceptionally free from infectious diseases and epidemics and the absence of vegetation, the dryness of the soil and the purity of the drinking water constitute efficient safeguards against many maladies common to tropical countries. The annual rainfall varies from $\frac{1}{2}$ inch to $\frac{3}{4}$ inches with an irregular average of 3 inches.

At the outset of the war the Turks established themselves on the Arabian shore of the straits of Bah-el-Mandeb. They were driven off their fort captured and then guns taken by a force landed from a British warship. But in July last year a mixed force of Turks and Arabs advanced against the Aden settlement. News was made known in India by a Reuters telegram of July 9th which said that the Turks and Arabs threatened Lahaj that at the request of the Sultan of Lahaj a force was sent for the protection of his capital and that the supporting force was to be met with water and transport difficulties that it was decided to retire and the whole force withdrew to Aden the enemy declining to follow. Subsequently came an official intimation that the Sultan of Lahaj who had been grievously wounded in a fight against the raiding force had died in Aden whither he had been taken for surgical treatment. The Government of India announced on July 22nd that on the morning of the 21st instant a force from the Aden Garrison attacked the position taken by the Turks a few miles outside the settlement and drove them from it the pursuit being continued for a distance of five miles.

The following are the principal officers of the present administration—

Political Resident, Brig.-General C. H. K. Price, C.B. D.S.O.

Assistant Residents, Lieut. Colonel M. T. Elderton (Perim), Lieut. Colonel H. F. Jacob, Lieut. Colonel J. K. Condon (on furlough), Captain B. R. Reddy, Lieut. Colonel W. Beak, Capt. A. H. E. Mose.

The Native States.

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The area enclosed within the boundaries of India is 1 773 168 square miles, with a population of 315,132 537 of people—nearly one fifth of the human race. But of this total a very large part is not under British Administration. The area covered in the Native States is 675 287 square miles with a population of seventy millions. The Native States embrace the widest variety of country and jurisdiction. They vary in size from petty states like Lawa, in Rajputana with an area of 19 square miles and the Simla Hill States which are little more than small holdings, to States like Hyderabad, as large as Italy, with a population of thirteen millions. They include the inhospitable regions of Western Rajputana, Baroda part of the Garden of India Mysore rich in agricultural wealth and Kashmir one of the most favoured spots on the face of the globe. In the case of 176 States control is exercised by the Government of India and of about 500 by the Provincial Governments. The four principal states Hyderabad Mysore Baroda and Kashmir are in direct relation with the Government of India. The other States are grouped under the direction of an Agent to the Governor-General as for Rajputana and Central India. In one case the Provincial Government has been compelled to group its States those of Kathiawar under an Agent to the Governor.

Relations with the Paramount Power

So diverse are the conditions under which the Native States were established and came into political relation with the Government of India that it is impossible even to summarise them. But broadly it may be said that as the British boundaries expanded, the states came under the influence of the Government and the rulers were confirmed in their power. To this general policy however there was, for a brief period an important departure. During the regime of Lord Dalhousie the Government introduced what was called annexation through lapse. That is to say when there was no direct heir the Government considered whether public interests would be secured by granting the right of adoption. Through the application of this policy the states of Satara and of Nagpur fell to the East India Company and the kingdom of Oudh was annexed because of the gross misgovernment of its rulers. Then came the Mutiny. It was followed by the transference of the dominions of the East India Company to the Crown, and an irrevocable declaration of policy toward the Native States. In the historic Proclamation of Queen Victoria it was set out that "We desire no extension of our present territorial possessions and while we will permit no aggression on our dominions or our rights to be attempted with impunity we shall allow no encroachments on those of others. We shall respect the rights dignity and honour of the Native Princes as our own and we desire that they as well as our own subjects, should enjoy that prosperity and that social advancement which can only be secured by internal peace and good government." Since the issue of that proclamation there has been no encroachment on the area under Native rule by the Government of India. On the contrary, the movement has been in the op-

posite direction. In 1881 the State of Mysore which had been so long under British administration that the traditions of Native rule were almost forgotten was restored to the old Hindu ruling house. In 1911 the Maharajah of Benares, the great taluqdar of Oudh was granted ruling powers over his extensive possessions. On many occasions the Government of India has had to intervene, to prevent gross misgovernment, or to carry on the administration during a long minority but always with the undeviating intention of restoring the territories as soon as the necessity for intervention passed. Almost all states possess the right of adoption in default of heirs.

Rights of Native States

The rights and obligations of the Native States are thus described by the Imperial Gazetteer. The Chiefs have without exception gained protection against dangers from without and a guarantee that the protector will respect their rights as rulers. The Paramount Power acts for them in relation to foreign Powers and other Native States. The inhabitants of the Native States are the subjects of their rulers, and except in case of personal jurisdiction over British subjects these rulers and their subjects are free from the control of the laws of British India. Criminals escaping to a Native State must be handed over to it by its authorities; they cannot be arrested by the police of British India without the permission of the ruler of the State. The Native Princes have therefore a suzerain power which acts for them in all external affairs, and at the same time scrupulously respects their internal authority. The suzerain also intervenes when the internal peace of their territories is seriously threatened. Finally they participate in all the benefits which the protecting power obtains by its diplomatic action or by its administration of its own dominions and thus secure a share in the commerce the railways, the ports and the markets of British India. Except in rare cases applied to maritime states they have freedom of trade with British India although they levy their own customs and their subjects are admitted to most of the public offices of the British Government.

Obligations of Native States.

On the other hand the Native States are under an obligation not to enter into relations with foreign nations or other states the authority of their rulers has no existence outside their territories. Their subjects outside their dominions become for all intents and purposes British subjects. Where foreign interests are concerned the Paramount Power must act so that no just cause of offence is given by its subordinate allies. All Native States alike are under an obligation to refer to the British every question of dispute with other states. Inasmuch as the Native States have no use for a military establishment other than for police, or display or for co-operation with the Imperial Government, their military forces their equipment and armament are prescribed by the Paramount Power. Although old and unaltered treaties declare that the British Government will have no manner of concern with any of a Maharajah's dependents or servants, with respect to whom the Maharajah is absolute, logic and public opinion

have endorsed the principle which Lord Curzon set forth in his minute of 1860 that the "Government of India is not precluded from stopping in to set right such serious abuses in a Native Government as may threaten any part of the country with anarchy or disturbance, nor from assuming temporary charge of a Native State when there shall be sufficient reason to do so." Of this necessity the Governor General in Council is the sole judge subject to the control of Parliament. Where the law of British India confers jurisdiction over British subjects or other specified persons in foreign territory that power is exercised by the British courts which possess it. The subjects of European Powers and the United States are on the same footing. Where cantonments exist in Native territory jurisdiction both over the cantonment and the civilian station is exercised by the sovereign power.

Political Officers

The powers of the British Government are exercised through Political Officers who as a rule reside in the State themselves. In the larger States the Government is represented by a Resident, in groups of States by an Agent to the Governor General assisted by local Residents or Political Agents. These officers form the sole channel of communication between the Native States and the Government of India and its Foreign Department. With the officials of British India and with other Native States they are expected to advise and assist the Ruling Chiefs in any administrative or other matters on which they may be consulted. Political Agents are similarly employed in the larger States under the Provincial Governments but in the petty States scattered over British India the duties of the Agent are usually entrusted to the Collector or Commissioner in whose district they lie. All questions relating to the Native States are under the special supervision of the Supreme Government, and in the personal charge of the Governor General. A proposal has been made by the Government of India that in view of the increasing importance of the Native States an additional Secretary styled the Political Secretary shall be appointed who shall be in special charge, under the Viceroy of these questions.

Closer Partnership

Events have tended gradually to draw the Paramount Power and the Native States into closer harmony. Special care has been devoted to the education of the sons of Ruling Chiefs, first by the employment of tutors and afterwards by the establishment of special colleges for the purpose. These are now established at Ajmer, Jaipur, Indore and Lahore. The Imperial Cadet Corps whose headquarters are at Dehra Dun imparts military training to the scions of the ruling chiefs and

noble families. The spread of higher education has placed at the disposal of the Native States the products of the Universities. In these ways there has been a steady rise in the character of the administration of the Native States approximating more closely to the British ideal. Most of the Native States have also come forward to bear their share in the burden of Imperial defence. Following on the spontaneous offer of military assistance when war with Russia appeared to be inevitable over the Fijish Incident in 1885 the States have raised a portion of their forces up to the standard of the Native troops in the Indian Army. These are termed Imperial Service Troops; they belong to the States, they are offered by Indians, but they are inspected by a regular cadre of British officers under the general direction of the Inspector General of Imperial Service Troops. Their numbers are approximately 2,000 men, their armament is the same as that of the Indian Army and they have done good service often under their own chief, on the frontier and in China and in Sumatra. Secure in the knowledge that the Paramount Power will respect their rights and privileges the Ruling Chiefs have lost the suspicion which was common when their position was less assured and the visits of the Prince of Wales in 1925 of the Prince and Princess of Wales in 1925-26 and of the King and Queen in 1921-22 have tended to seal the devotion of the great feudatories to the Crown. The improvement in the standard of native rule has also permitted the Government of India largely to reduce the degree of interference in the internal affairs of the Native States. The new policy was authoritatively laid down by Lord Mountbatten Viceroy in a speech at Calcutta in 1909 when he said—

"Our policy is with rare exception one of non-interference in the internal affairs of the Native States. But in guaranteeing their internal independence and in underwriting their protection against external aggression it naturally follows that the Imperial Government has assumed a certain degree of responsibility for the general soundness of their administration and could not consent to hear the reproach of being an indirect instrument of misrule. There are also certain matters in which it is necessary for the Government of India to safeguard the interests of the community as a whole as well as those of the paramount power such as railways, telegraphs and other services of an Imperial character. But the relationship of the Supreme Government to the State is one of suzerainty. The foundation stone of the whole system is the recognition of identity of interests between the Imperial Government and Rulers and the minimum of interference with the latter in their own affairs."

HYDERABAD

Hyderabad the premier Native State in India lies in the Deccan. Its area is 82,696 square miles and population 13,574,676. The general physical characteristics of the State are an elevated plateau divided geographically and ethnologically by the Marjra and Godavari rivers. To the North-West is the Deccan region, peopled by Marathas a country of black cotton soil

producing wheat and cotton. To the South East is the granitic region of the Telugus and producing rice.

HISTORY—In pre-historic times Hyderabad came within the great Dravidian zone. The date of the Aryan conquest is obscure, but the dominions of Asoka 272 to 231 B.C. embraced the northern and western portions of the State.

Three great Hindu dynasties followed, those of the Pallavas, Chalikyas and Yadavas. In 1294 the irruption of the Mahomedans under Ala-ud-din Khilji commenced, and thenceforward till the time of Aurangzeb the history of the State is a confused story of struggles against the rising Hindu kingdom of the South and after the fall of Vijayanagar with each other. Aurangzeb stamped out the remains of Mahomedan independence of the South and set up his General Asaf Jah of Furrukhan as a Viceroy or Subhedar of the Deccan in 1713. In the chaos which followed the death of Aurangzeb, Asaf Jah had no difficulty in establishing and maintaining his independence and thus founded the present House. During the struggle between the British and the French for mastery in India the Nizam finally threw in his lot with the British and unshakably by the settlement of the mutiny has been so staunch to his engagements as to earn the title of 'Our Faithful Ally'. The present ruler is H. B. Sir Ali Khan Bahadur Fateh Jung G. C. S. I.

THE BERARS—A most important event in the history of the State occurred in November 1902 when the Assigned Districts of Berar were leased in perpetuity to the British Government. These districts had been administered by the British Government on behalf of the Nizam since 1853 under the terms of 1853 and 1860, the latter were assigned with a view of time to the British Government to provide for the maintenance of the Hyderabad contingent a body of troops to pay for the British Government for the Nizam's use the surplus revenue (Asaf Jahi) payable to the Nizam. In course of time it had become apparent that the maintenance of the Hyderabad contingent on its old footing as a separate force was inexpedient and uneconomical and that similarly the administration of Berar as a separate unit was very costly while from the point of view of the Nizam the precarious and fluctuating nature of the surplus was financially inconvenient. The agreement of 1902 reaffirmed His Highness's sovereignty over Berar which instead of being indefinitely assigned to the Government of India was leased in perpetuity to an annual rental of 20 lakhs (nearly £160,000) the rental is for the present charged with an annual debit towards the repayment of loans made by the Government of India. The Government of India were at the same time authorised to administer Berar in such manner as they might think desirable and to redistribute revenue, re-organise and control the Hyderabad Contingent due provision being made as stipulated in the treaty of 1853 for the protection of His Highness's dominions. In accordance with this agreement the Contingent ceased in March 1903 to be a separate force and was re-organised and redistributed as an integral part of the Indian Army and in October 1903 Berar was transferred to the administration of the Chief Commissioner of the Central Provinces.

ADMINISTRATION—The Nizam is supreme in the State and exercises the power of life and death over his subjects. For convenience in administration the Minister is the chief controlling authority in the State. To assist him there are five Assistant Ministers, Financial, Judicial, Military, Public Works and Ecclesiastical. All questions of importance are referred to the

Council, which is composed of the Minister as President and the Assistant Ministers as Members. Business disposed of by the Council is immediately reported to the Nizam. The actual work of the departments is done by six Secretaries. Below the Secretariat the State is divided into Subhas or Divisions, Districts and Talukas. Fifteen Districts, 86 Taluk and nine Divisional Boards are at work in the District. A Legislative Council consisting of 21 members of whom 13 are official and 8 non-official, is responsible for making laws. The State maintains its own currency the Osmanli Rupee with a subordinate coinage. In 1904 an Improved Mahabubul Rupee was struck and this exchanges with the British Rupee at the ratio of 115 or 116 to 100. It has its own postal system and stamps for internal purposes. It maintains its own Army comprising 19,977 troops of which 6,064 are classed as Regular and 1,533 as Irregular. There are in addition 6,000 Imperial Service Troops.

FINANCE—After many vicissitudes the financial position of the State is strong. The current budget provides for a revenue of Rs. 52½ lakhs and a service expenditure of Rs. 47½ lakhs. The principal revenue heads are Land Revenue 29 lakhs, Berar rent (land leased in perpetuity to the British Government and incorporated in the Central Province) 2½ lakhs, Customs etc., 67 lakhs, Excise 30 lakhs, Interest 3½ lakhs.

PRODUCTION AND INDUSTRY—The principal industry of the State is agriculture which maintains 50 per cent of the population. The country is rich in land and is fertile. As no reliable figures are available to show the gross produce it is impossible to say what proportion the land revenue bears to it but it is collected without difficulty. The principal food crops are millet and rice the staple money crops cotton which is grown extensively on the black cotton soils, and oil seeds. The State is rich in minerals. The great Warangal coal measures are worked at Singareni but the efforts to revive the historic gold and diamond mines have met with very qualified success. The manufacturing industries are consequent on the growth of cotton and comprise three spinning and weaving mills and ginning and pressing factories in the cotton tracts.

COMMUNICATIONS—One hundred and thirty-seven miles of the broad gauge line from Bombay to Madras traverses the State at Wadi on this section the broad gauge system of the Vizianagaram Guaranteed State Railway takes off running East to Wanigani and South East toward Dwarwada a total length of 210 miles. From Hyderabad the metre gauge Godavari Railway runs North West to Mannam on the Great Indian Peninsula Company's system 94½ miles. There are thus 471 miles of broad gauge and 391 of metre in the State. The Berar Light Railway owns a short extension to Latur. The roads are generally inferior.

EDUCATION—The State maintains two Colleges. The Nizam College at Hyderabad (first grade) is affiliated to the Madras University. The Oriental College at Hyderabad prepares students for the local Moulvi and Munsifi examinations. There are 23 high schools, 63 middle schools, 17 primary schools and 24 special schools including a Medical School in the Dominions.

British Residents—The Hon. Lieut. Col. Sir A. F. Finlay K.C.S.I., C.F.R.

MYSORE

The State of Mysore is surrounded on all sides by the Madras Presidency except on the north and north west where it is bounded by the districts of Dharwar and North Canara respectively and towards the south west by Coorg. It is naturally divided into two regions of distinct character, the hill country (the Malnad) on the west and the wide-spreading valleys and plains (the Maidan) on the east. The State has an area of 29,461 square miles excluding that of the Civil and Military Station of Bangalore and a population of 5,705,359 of whom over 99 per cent. are Hindus. Kannarese is the distinctive language of the State.

HISTORY—The ancient history of the country is varied and interesting. Tradition connects the table-land of Mysore with many a legend enshrined in the great Indian epics, the Ramayana and the Mahabharata. Coming down to historical times the north-eastern portion of the country formed part of Asoka's Empire in the third century B.C. Mysore then came under the rule of the Andhra dynasty. From about the third to the eleventh century A.D. Mysore was ruled by three dynasties, the north-western portion by the Kadambas, the eastern and northern portions by the Pallavas and the central and southern portions by the Gangas. In the eleventh century Mysore formed part of the Chola dominion, but the Cholas were driven out early in the twelfth century by the Hoysalas, an indigenous dynasty with its capital at Halebidu. The Hoysala power came to an end in the early part of the fourteenth century. Mysore was next connected with the Vijayanagar Empire. At the end of the fourteenth century Mysore became associated with the present ruling dynasty. At first tributary to the dominant empire of Vijayanagar, the dynasty attained its independence after its downfall in 1565. In the latter part of the eighteenth century the real sovereignty passed into the hands of Haldar Ali and then his son Tipu Sultan. In 1799 on the fall of Seringapatam the British Government restored the State comprised within its present limits to the ancient dynasty in the person of Maharaja Sri Krishnaraja Wodeyar Bahadur III. Owing to the insurrections that broke out in some parts of the country the management was assumed by the British Government in 1831. In 1881 the State was restored to the dynasty in the person of Sri Chamarajendra Wodeyar Bahadur under conditions and stipulations laid down in the Instruments of Transfer. That ruler with the assistance of Mr. (afterwards Sir) K. Seshadri Iyer K.C.S.I., as Dewan, brought Mysore to a state of great prosperity. He died in 1894 and was succeeded by the present Maharaja Sir Sri Krishnaraja Wodeyar Bahadur G.C.S.I. who was installed in 1902. In November 1913, the Instrument of Transfer was replaced by a Treaty which indicates more appropriately the relation subsisting between the British Government and the State of Mysore.

ADMINISTRATION—The city of Mysore is the capital of the State but Bangalore City is the administrative head quarters. His Highness the Maharaja is the ultimate authority in the State and the administration is conducted under his control, by the Dewan and three

Members of the Council including the Extraordinary Member. The Chief Court consisting of three Judges is the highest judicial tribunal in the State. A Representative Assembly meets once a year at Mysore when the Dewan places before them the annual statement of finances and the measures of the State after which representations are heard and considered. There is also a Legislative Council consisting of 25 members of whom 12 are officials and 13 non-officials, eight elected and five nominated. The Council has recently been given the privileges of interpellation and discussion of the State budget. All the important branches of the administration are controlled by separate heads or departments. For administrative purposes the State is divided into 8 districts and subdivided into 63 talukas each district being under a Deputy Commissioner and District Magistrate and each taluk under an Amildar and subordinate Magistrate. The State maintains a military force of 3,802 including 516 in the Imperial Service Regiment (Cavalry) and 480 in the Imperial Service Transport Corps.

FINANCE—The cash balance at the beginning of 1914-15 was Rs. 101 lakhs. Total receipts during the year were Rs. 278 lakhs and total disbursements Rs. 313 lakhs. The principal revenue heads are Land Revenue Rs. 103 lakhs, Mining Royalty and Leases Rs. 21 lakhs, Forest revenue Rs. 17 lakhs, Excise Rs. 5.5 lakhs, Stamps Rs. 11 lakhs, Railway Rs. 13 lakhs and Electric power and Light Rs. 77 lakhs. Mysore pays an annual subsidy of 35 lakhs to the British Government.

ECONOMIC CONFERENCE—The Mysore Economic Conference was organised in June 1911 with the object of creating and keeping alive public interest in matters connected with the economic progress of the State by a frequent interchange of views and discussions among those competent to deal with them and in order to associate men of enlightenment, public spirited citizens, prominent agriculturists, merchants and others with the officers of Government in such deliberations. The Conference meets annually at Mysore during the festivities in connection with His Highness the Maharaja's birthday. It has three Central Committees dealing with questions connected with Agriculture, Education and Industries and Commerce and District Committees in the several districts.

AGRICULTURE—Nearly three-fourths of the population are employed in agriculture and the general system of land tenure is Ryotwari. The principal food crops are ragi, rice, jowar, millets, gram and sugarcane and the chief fibres are cotton and sun-hemp. Over 28,000 acres are under mulberry, the silk industry being the most profitable in Mysore next to gold mining. The Department of Agriculture which was recently reorganised on a large scale is popularising agriculture on scientific lines by means of demonstrations, investigations and experiments.

INDUSTRIES—A separate department of Industries and Commerce has been created with a view to improve the existing industries and to provide expert advice and other facilities for the starting of new industries in the State. The manufacturing industries include 12 cotton

ginning mills, 8 cotton presses, 2 cotton mills, 3 silk filatures and 2 woollen mills. There are also 4 oil mills, 11 rice mills, 9 sugar mills, 4 brick and tile factories, 3 cigar factories, 8 tanneries, 15 mechanical workshops, 2 distilleries, 1 iron and steel works, 1 silk reeling house, 4 flour mills, 2 bonemeal factories, 3 coffee curing works, 3 dyeing factories, 2 buskeries, 1 brewery, 1 iron and brass foundry, 1 lacquer work, 2 tannery works, 4 saw mills, 1 weaving factory, 1 pharmaceutical works, 1 soap factory, 1 wood turning and 1 lithographic press. In addition there are 38 pumping plants for irrigation. Mines: 30 mines were at work during 1914—13 for gold, 3 for manganese, 5 for chrome ore, mica and 5 for other minerals. The value of gold produced last year was nearly 324 lakhs.

BANKING—In 1913 a State-aided bank called the Bank of Mysore was started with its head quarters in Bangalore and agencies at many of the important places in the State. Besides this there is one central co-operative bank, one District Bank and 10 Federal Banking Unions and there are now 710 societies working.

COMMUNICATIONS—The Railway system radiates from Bangalore various branches of the Madras and Southern Mahratta Railway running through the State. The length of the lines owned by the State and worked under contract by the Company is 411.17 miles of which 9.88 are of broad gauge and the rest metre gauge. A District Board Railway from Bowringpet to Kolar (11 miles) was opened in December 1913. A Light Railway from Yala haika to Chikbellapur and a Tramway from Tarikere to Narasimharajapura have also been opened. Several other projects have been prepared and good progress has been made on some of them.

EDUCATION—There are two first grade colleges the Central College at Bangalore and the Maharaja's College at Mysore both affiliated

to the Madras University. They have been efficiently equipped and organised and Honours courses in Physics and History and Economics have been recently instituted. There is also a training College for men and a College for women the Maharani's College at Mysore. Primary education has recently been made compulsory in certain selected areas. Schools have been started for imparting education in agricultural, commercial and technical subjects. There are 4269 public and 1754 private educational institutions in the State. This gives one school to every 489 square miles of the area and to every 947 persons of the population of the State.

PLACES OF INTEREST—Mysore City the capital is a modern city laid out with fine roads and suburbs. The prominent buildings are the Palace, the Chamarajendra Technical Institute, Government House, the Maharaja's College, the Maharani's College and the Oriental Library.

Bangalore the largest city in the State and the commercial and manufacturing centre stands on a table land 3000 feet above the sea and is noted for its salubrious climate and luxuriant gardens. The principal places of interest are the Public Office, the Central College buildings, the Museum, the Lal Bagh, the Indian Institute of Science and the Indian Sanskrit Institute.

The historic town of Srirangapatna the famous Jog Falls, the Kolar Gold Fields, the Srirangamudra and Belur, Somnathpur and Halebidu with their temples of exquisite architecture are some of the other important places of interest in the State.

Resident and Chief Commissioner of Coorg—The Honble Lieut. Col. Sir Hugh Dalrymple C.S.I.

Deputy—Sir M. Visvesvaraya B.A. K.C.L.E.

BARODA.

The State of Baroda is situated partly in Gujarat and partly in Kathiawar. It is divided into four distinct blocks: (1) the southern district of Navsari near the mouth of the Tapi river and mostly surrounded by British territory, (2) central district North of the Narbada, in which lies Baroda, the capital city, (3) to the North of Ahmedabad the district of Kadi, and (4) to the West in the Peninsula of Kathiawar the district of Amreli formed of scattered tracts of land. The area of the State is 8182 square miles, the population is over two millions of whom over four fifths are Hindus.

HISTORY—The history of the Baroda State as such dates from the break up of the Mughal Empire. The first Maratha invasion of Gujarat took place in 1705 and in this and later incursions Pishaji Gaikwar who may be considered as the founder of the present ruling family greatly distinguished himself. Songhad was the Headquarters till 1766. Since 1728 Pishaji regularly levied tribute to Gujarat. His son Damaji finally captured Baroda in 1784 since when it has always been in the hands of the Gaikwars, but Mughal authority in Gujarat did not end until the fall of Ahmedabad in 1763, after which the country was

divided between the Gaikwar and the Peshwa. In spite of the fact that Damaji was one of the Maratha chiefs defeated at Panipat by Ahmed Shah, he continued to add to his territory. He died in 1768 leaving the succession in dispute between two rival sons. He was succeeded in turn by his sons Sayaji Rao I, Fatterji Rao, Manaji Rao and Govind Rao. The last died in 1800 and was succeeded by Anand Rao. A period of political instability ensued which was ended in 1803 by the help of the Bombay Government, who established the authority of Anand Rao at Baroda. By a treaty of 1804 between the British Government and Baroda it was arranged that the foreign policy of the State should be conducted by the British, and that all differences with the Peshwa should be finally arranged. Baroda was a staunch ally of the British during the wars with Bajji Rao Peshwa, the Pindari hordes and Holkar. But from 1820 to 1841 when Sayaji Rao II was Gaikwar, differences arose between the two Governments, which were settled by Sir James Carmac, Governor of Bombay in 1841. Ganpat Rao succeeded Sayaji Rao in 1847. During his rule, the political supervision of Baroda was transferred to the Supreme Go-

vernment. His successor, Khande Rao who succeeded the Gadi in 1866, introduced many reforms. He stood by the British in the Mutiny. He was succeeded by his brother Malhar Rao in 1877. Malhar Rao was deposed in 1875 for notorious misdeeds and was misgovernment, but the suggestion that he had instigated the attempt to poison Col. Phayre, the Resident, was not proved. Sayaji Rao III, a boy of 12 years of age who was descended from a distant branch of the family, was adopted as heir of Khande Rao in 1876 and is the present Gaikwar. He was invested with full powers in 1881.

ADMINISTRATION—An executive council consisting of the principal officers of the State carries on the administration subject to the control of the Maharaja, who is assisted by a Dewan and other officers. A number of departments have been formed which are presided over by officials corresponding to those in British India. The State is divided into four *prants* each of which is subdivided into *Mahals* and *Peta Mahals* of which there are in all 42. Attempts have for some years been made to restore village autonomy and village *panchayats* have been formed which form part of a scheme for local self government. There is a Legislative Department under a Legal Remembrancer which is responsible for making laws. There is also a Legislative Council consisting of nominated and elected members. A High Court at Baroda possesses jurisdiction over the whole of the State and hears all final appeals from the decisions of the High Court appeals in certain cases to the Maharaja who decides them on the advice of the Huzur Nyaya Sahas. The State Army consists of 5,084 Regular forces and 8,804 Irregular forces.

FINANCE—In 1913-14 the total receipts of the State were Rs. 290 lakhs and the disbursements Rs. 142 lakhs. The principal Revenue heads were—Land Revenue Rs. 117 lakh, Akari Rs. 21 lakh, Opium Rs. 21 lakh, Railways Rs. 8 lakh, Rent Rs. 7 lakh. Tribute from other States Rs. 1 lakh. British Currency was introduced in 1901.

INDUSTRY AND AGRICULTURE—Agriculture and pasture support 83 per cent of the people. The principal crops are rice, wheat, gram, castor-oil, rapeseed, poppy, cotton and hemp.

tobacco, sugarcane, maize and garden crops. The greater part of the State is held on *ryotwari* tenure. The State contains few minerals, except sandstone, which is quarried at Songri and a variety of other stones which are little worked. There are 33 industrial or commercial concerns in the State registered under the State Companies Act. There are five agricultural Banks and 262 Co-operative Societies in Baroda.

COMMUNICATIONS—The B. B. & C. I. Railway crosses part of the Navsari and Baroda *prants*, and the Rajputana Malwa Railway passes through the Kadi *prant*. A system of branch lines has been built by the Baroda Durbar in all the four *prants* in addition to which the Left Valley Railway and the Baroda Godhra Road line (B. B. & C. I.) pass through the State. The Railways constructed by the State are 412 miles in length and 120 miles are under construction. Good roads are not numerous.

EDUCATION—The Education Department controls 1,088 institutions of different kinds in 8 of which English is taught. The Baroda College is affiliated to the Bombay University. There are a number of high schools, technical schools and schools for special classes such as for the jungle tribes and Indian castes. The State is in a way pledged to the policy of free and compulsory primary education. It maintains a system of rural and travelling libraries. Ten per cent of the population is returned in the census as literate. Total expenditure on Education is about Rs. 17 lakhs.

CAPITAL CITY—Moroda City with the cantonment has a population of 99,345. It contains a public park, a number of fine public buildings, palaces and offices and is crowded with Hindu temples. The cantonment is to the North-west of the city and is garrisoned by an infantry battalion of the Indian Army. An Imperial Trust has been formed to work in Baroda City and has set itself an ambitious programme.

GOVERNMENT—His Highness Farzand I Khawaj Dowlat Singh, Maharaja Sir Sayaji Rao Gaikwar, Sir Khajabhai Saheb Bahadur, 1081 Maharaja of Baroda.

RESIDENT—Lt. Col. L. Impey, C.B.
Dewan—V. P. Madhoo Rao, C.B. (Retired)

KASHMIR

Kashmir (known to Indians as Jammu) lies to the east of the Indus and to the west of the Ravi. It is a mountainous country with just a strip of level land along the Punjab frontier and intersected by valleys of which many are of surpassing beauty and grandeur. It may be divided physically into two areas, the north-eastern comprising the area drained by the Indus and its tributaries and the south-western including the country drained by the Jhelum, the Kishtanganga and the Chenab. The dividing line between these two areas is the great central mountain range. The area of the State is 84,482 square miles and the population 2,158,120.

HISTORY—Various poets have left more or less trustworthy records of the history of the valley down to 1586 when it was conquered by Akbar. Srinagar the capital had by then been long established, though many of the fine buildings created by early Hindu rulers had been

destroyed by the Mahomedan kings who first appeared in the 12th century. In the reign of Sikandar the population became almost entirely Mahomedan. Akbar visited the valley three times. Jhangir did much to beautify it but after Aurangzeb there was a period of disorder and decay and by the middle of the eighteenth century the *Sulab* of Kashmir was practically independent of Delhi. Thereafter it experienced the oppression of Afghan rule until it was rescued in 1819 by an army sent by Ranjit Singh. Sikh rule was less oppressive than that of the Afghans. The history of the State as at present constituted is practically that of one man, a Dogra Rajput, Gulab Singh of Jammu. For his services to the Sikhs this remarkable man had been made Raja of Jammu in 1820 and he added largely to his territory by conquest. He held aloof from the war between the British and the Sikhs, only appearing as mediator after the battle of Sobram.

(1846) when the British made over to him for Rs 70 lakhs the present territories of the State. He had to fight for the valley and subsequently lost part of his State, Gilgit, over which the Government had at a heavy cost to reassert their claims. His son Ranbir Singh a model Hindu ruled from 1857 to 1885 when he was succeeded by his eldest son Major-General H H Maharaja Sir Farbat Singh G.C.S.I. & C.I.E.

ADMINISTRATION—For some years the Maharaja took no part in the administration of the State but since 1905 he has exercised full powers assisted by a Chief Minister—Raj Sahab Dewan Amar Nath C.I.E.—a Home Minister and a Revenue Minister. The four chief executive officers are the Governors of Jammu and of Kashmir, the Wazir Wazarat of Gilgit and the Wazir Wazarat of Ladakh. The real administrative power lies with the petty subordinate officers (talukdars) who exercise executive, civil and criminal jurisdiction with regular stages of appeal. But distance and the absence of easy communications are practical checks on the use or abuse of appeals. The British Resident has his headquarters at Srinagar, there is also a Political Agent at Gilgit responsible to the Government of India for the administration of the outlying petty States and a British Officer stationed at Leh to assist in the supervision of Central Asian trade. In the District the State has splendid materials for an Army which consists of 6,961 troops of whom 3,370 are maintained as Imperial Service Corps.

FINANCE—The financial position of the State is strong and it has more than 40 lakhs invested in Government of India securities. The total revenue last year was 93 lakhs the chief items being land revenue, forests, customs and excise.

PROTECTION AND INDUSTRIES—The population is predominantly agricultural and pastoral. The system of land tenure has been described as "rotational in ruins" great complexity existing owing to the fact that there is no local law of rent and revenue. The principal food crops are rice, maize, cotton, saffron, tobacco, hops (nutriment crops) and wheat, barley, poppy, fennel, fruit, crops are also grown. Sheep are largely kept. The State forests are extensive and valuable. Exploration for minerals has not been attempted on sound principles. Vest 6 lakhs of rubies, dusty coral have been found. Gold has been found at Gulmarg and Sapphires in Padar. The Industries of manufacture are

chiefly connected with sericulture (the silk culture at Srinagar the largest in the world was destroyed by fire in July 1912) oil pressing and the manufacture of wine. The woollen cloth, shawls, and wood carving of the State are famous.

COMMUNICATIONS—The State contains only 16 miles of railway on the Tawi Suchetgarh branch of the A.W. Railway. The Jhelum is the only navigable river. At present there is much activity in improving road communications but in many parts of the country wheeled traffic is unknown.

PUBLIC WORKS—In 1904 a flood spill channel above Srinagar was constructed with a view to minimizing the constant risk of floods and it was hoped that the danger would be still further reduced by the carrying out of a scheme for lowering a part of the bed of the Jhelum which has since been taken in hand. Good progress has been made with irrigation but the most important schemes of recent years have been those for an electrical power station on the Jhelum river and for a Railway into Kashmir. It was proposed to supply from this power station electrical energy for various State schemes (including the Jhelum dredging scheme) and for private enterprises and possibly for working the proposed Kashmir Railway. The works were completed about 1907 and the scheme according to the latest reports is working very satisfactorily. The proposal for a railway to Kashmir had been under discussion for many years the nature of the country making the question of route a difficult one. In 1905 a decision was taken in favour of a line from Srinagar to the Jhelum Valley and Abbottabad but the project has remained in abeyance pending the consideration of further schemes. Amongst the proposals for lines of railway from Jammu to Srinagar and from Srinagar to the western borders of the Jhelum Valley.

EDUCATION—In educational matters Kashmir is the most backward tract in the whole of India. In the State as a whole only 2 in every 100 persons can read and write. The number of educational institutions has increased from 45 in 1911 to 379 in 1911.

Resident—The Hon. Mr S. M. Faser C.S.I. & I.C.S.

Political Agent at Gilgit—Major V. D. Macpherson.

BALUCHISTAN AGENCY

In this Agency are included the Native States of Kalat, Khairpur and Las Bela. The Khan of Kalat is head of the Baluchistan tribal chiefs whose territories are comprised under the following divisions—Jilwan, Barawan, Makran, Kachhi, Dohki, Kahrli, Umrani and Nasirabad. These districts form what may be termed Kalat Baluchistan, and occupy an area of 11,593 square miles. The inhabitants of the country are either Brahuis or Baluchis both being Mahomedans of the Sunni sect. The country is sparsely populated, the total number being about 470,398. It derives its chief importance from its position with regard to Afghanistan on the north western frontier of British India. The relations of Kalat with the British Government are governed by two treaties of 1854 and 1878 by the latter of which the

Khan agreed to act in subordinate co-operation with the British Government. There are however agreement with Kalat in connection with the construction of the Indo European telegraph the cession of jurisdiction on the railways and in the Bolan Pass and the permanent lease of Quetta, Nushki and Nasirabad. The Khan is assisted in the administration of the State by a Political Adviser lent by the British Government. The Governor General's Agent in Baluchistan conducts the relations between the Government of India and the Khan and exercises his general political supervision over the district. The revenue of the State is about Rs 75,000. The present Khan is His Highness Amir Sir Mahmud Khan of Kalat C.I.E. He was born in 1864.

Khairpur extends in a westerly and south

westerly direction from near Nuchki and Kalat to the Pusman border. Its area is 14,219 square miles, it has a population of 19,610 and an annual average revenue of about Rs 90,000.

The Chief of Khairpur, Sardar Sir Nuroz Khan, K.C.I.B., died in June 1909, and was succeeded by his son Sardar Yakub Khan. The attitude of the new chief towards Government, and his administration generally were unsatisfactory. In 1911 he was murdered by the sepoy of his guard. Some trouble was caused by an uncle of the murdered chief, who declared himself Chief, but the Government of India finally recognized the succession of a son, Mir Habibulla Khan, and approved measures for the administration of the State during his minority.

Las Bela is a small State occupying the valley and delta of the Purull river about 60 miles west

of the Sind boundary. Area 6,441 square miles; population 56,159, chiefly Sunni Mahomedans, estimated revenue about Rs 35,000. The Chief of Las Bela, known as the Jam, is bound by agreement with the British Government to conduct the administration of his State in accordance with the advice of the Governor-General's Agent. This control is exercised through the Political Agent in Kalat. Sentences of death must be referred for confirmation. The Jam also employs an approved Wazir to whose advice he is subject and who generally assists him in the transaction of State business.

Agent to the Governor-General for Baluchistan—Lieut Col Sir John Ramsay K.C.I.E. C.B.

Political Agent, Kalat and Bolan Pass—Lieut Colonel J. B. Dew

RAJPUTANA AGENCY

Rajputana is the name of a great territorial circle with a total area of about 130,462 square miles, which includes 18 Native States, two chieftains, and the small British province of Ajmer-Merwara. It is bounded on the west by Sind, on the north west by the Punjab State of Bahawalpur, on the north and north east by the Punjab, on the east by the United Provinces and Gwalior while the southern boundary runs across the central region of India in an irregular zig-zag line. Of the Native States 17 are Rajput, 2 (Bharatpur and Dholpur) are Jat, and one (Tonk) is Mahomedan. The chief administrative control of the British district is vested ex-officio in the political officer who holds the post of Governor-General's Agent for the supervision of the relations between the several Native States of Rajputana and the Government of India. For administrative purposes they are divided into the following groups—Ajmer Agency, Bharatpur Agency, Eastern Rajputana Agency, 2 States (Bharatpur, Dholpur, Karauli), Bharatpur and Tonk Agency, 3 States (principal States Bundi and Tonk), Jaipur Residency, 3 States (principal States, Jaipur), Kotah and Jhalawar Agency, 2 States, Mewar Residency, Southern Rajputana States Agency, 4 States (principal States, Banswara), Western Rajputana States Agency, 3 States (principal States, Marwar and Sirohi).

The Aravalli Hills intersect the country almost from end to end. The tract to the north-west of the hills is, as a whole, sandy ill-watered and unproductive, but improves gradually from being a more desert in the far west to comparatively fertile lands to the north-east. To the south-east on the Aravalli Hills lie higher and more fertile regions which contain extensive hill tracts and which are traversed by considerable rivers.

COMMUNICATIONS.—The total length of rail lines in Rajputana is 1,578 miles of which 789 are the property of the British Government. The Rajputana-Malwa (Government) runs from Ahmedabad to Bandikui and from there branches to Agra and Delhi. Of the Native State railways the most important is the Jodhpur-Bikaner line from Marwar Junction to Hyderabad (Gandhi) and to Bikaner.

AGRICULTURE.—Over 80 per cent. of the population are engaged in some form of agriculture; about 20 per cent. of the total population are

maintained by the preparation and supply of material substances personal and domestic service provides employment for about 5 per cent and commerce for 2½ per cent of the population. The principal language is Rajasthani. Among castes and tribes the most numerous are the Brahmans, Jats, Mahajans, Chamars, Rajputs, Minas, Gujars, Bhils, Mahas, and Belals. The Rajputs are, of course, the aristocracy of the country and as such hold the land to a very large extent, either as receivers of rent or as cultivators. By reason of their position as integral families of pure descent, as a landed nobility and as the kinsmen of ruling chiefs, they are also the aristocracy of India, and their social prestige may be measured by observing that there is hardly a tribe or clan (as distinguished from a caste) in India which does not claim descent from or irregular connection with, one of these Rajput stocks.

The population and area of the States are as follows—

Name of State	Area in square miles	Population in 1911
Mewar Residency—		
Udaipur	12,958	1,293,779
Banswara	1,946	165,463
Dungarpur	1,447	159,193
Parbhagpur	884	42,704
Western States Residency—		
Jodhpur	54,963	2,057,553
Jaisalmer	19,002	86,311
Sirohi	1,964	199,187
Jaipur Residency—		
Jaipur	15,579	2,636,974
Kishanganj	858	87,191
Lawa	19	2,564
Bharatpur-Tonk Agency—		
Bundi	2,230	318,730
Tonk	1,114	303,181
Shahpura	466	47,387
Eastern States Agency—		
Bharatpur	1,963	690,635
Dholpur	1,185	270,923
Karauli	1,343	156,788
Kotah-Thakur Agency—		
Kotah	5,884	682,690
Jhalawar	2,554	30,471
Bikaner	24,500	700,000
Alwar	2,421	371,288

Udaipur State, (also called Marwar) was founded in about 1559. The capital city is Udaipur which is beautifully situated on the slope of a low ridge the summit of which is crowned by the Maharajah's palace, and to the north and west, houses extend to the banks of a beautiful place of water known as the Pichola lake in the middle of which stand two island palaces. It is situated near the terminus of the Udaipur-Ootmar Railway 697 miles north of Bombay. The present ruler is His Highness Maharajadhiraja Maharana Sir Fateh Singh Bahadur **ESQ** **GCM** who was born in 1849 and succeeded in 1884. He is the head of the Sisodia Rajputs. The administration is carried on by the Maharana assisted by two ministerial officers who with a staff of clerks, form the chief executive department in the State. The revenue and expenditure of the State are now about 28½ and 26 lakhs a year respectively. Udaipur is rich in minerals which are little worked. Its archaeological remains are numerous, and stone inscriptions dating from the third century have been found.

Banswara State, the southernmost in Rajputana, became a separate State about 1537. Towards the end of the eighteenth century Banswara became more or less subject to the Marathas, and paid tribute to the Raja of Dhar. In 1812 the Maharawal offered to become tributary to the British Government on condition of the expulsion of the Marathas, but no definite relations were formed with him till the end of 1818. The present ruler is His Highness Maharawal Sri Prithi Singh Bahadur who was born in 1888 and succeeded his father in 1913. The normal revenue is about 4 lakhs and the expenditure about 3 lakhs. The area of the State is 1,946 square miles and the population 187,468.

Dongargarh State with Banswara, formerly comprised the country called the Pagar. It was invaded by the Marathas in 1818. As in other States inhabited by hill tribes it became necessary at an early period of British supremacy to employ a military force to coerce the Bhils. The State represents the **Qadai** of the eldest branch of the Sisodiyas and dates its separate existence from about the close of the 12th Century when Mahop the rightful heir to the Chittor Throne migrated to these parts. The present Chief is His Highness Rai Rayan Maharawal, Shri Sir Bijaysinghji Sahab Bahadur **K C I**, born in 1897 and succeeded in 1898. During his minority the State was administered by a Political Officer, a chief Executive Officer and a Consultative Council of two. No railway line crosses the territory the nearest railway station, Udaipur being 60 miles distant. Revenue about 8 lakhs.

Partabgarh State, also called the Kanthal, was founded in the sixteenth century by a descendant of Rana Mokal of Mewar. The town of Partabgarh was founded in 1698 by Partab Singh. In the time of Jawant Singh (1775-1844) the country was overrun by the Marathas, and the Maharawal only saved his State by agreeing to pay Bolkar a tribute of **Salm Shami** Rs 72,720 (which then being coined in the State Mint was legal tender throughout the surrounding Native States). In Nov of 1845, 15,000 muskets were sent to Delhi. The State

connection of the State with the British Government was formed in 1804, but the treaty then entered into was subsequently annulled by Lord Cornwallis, and a fresh treaty by which the State was taken under protection was made in 1818. The tribute to Bolkar is paid through the British Government, and in 1904 was converted to Rs 30,350 British currency. The present ruler is His Highness Sir Baghwan Singh Bahadur **K C I** who was born in 1859 and succeeded in 1890. The State is governed by the Maharawal with the help of a Minister, and, in judicial matters of a Committee of eleven members styled the Raj Sabha or State Council. Revenue about 4 lakhs expenditure nearly 3½ lakhs. The financial administration is now under the direct supervision of the State.

Jodhpur State, the largest in Rajputana, also called Marwar, consists largely of desolate, sandy country. The Maharaja of Jodhpur is the head of the Rathor Clan of Rajputs and claims descent from Rama the deified king of Ajodhya. The earliest known king of the clan lived in the sixth century from which time onwards their history is fairly clear. The town of Jodhpur dates from about 1213, and the foundations of Jodhpur City were laid in 1459 by Rao Jodha. The State came under British protection in 1818. In 1839 the British Government had to interfere owing to misrule, and the same thing occurred again in 1896. Jawant Singh succeeded in 1878 and reformed the State. His son Sardar Singh was invested with powers in 1896 the minority rule having been carried on by his uncle Maharaja Sir Pratap Singh. He died in 1911 and was succeeded by his eldest son Maharaja Sumar Singh Bahadur who was then 14 years of age. The administration of the State is now carried on by a Council of Regency appointed by the Government presided over by Major-General Maharaja Sir Pratap Singh who abdicated the Gadi of Idar to carry on as Regent the reforms in Jodhpur which he had begun in the time of his nephew Maharaja Sir Sardar Singh Bahadur. On the outbreak of the European War both the Maharaja and the Regent offered their services and were allowed to proceed to the front. The young Maharaja was, for his services at the front, honoured with an Honorary Lieutenantship in the British Army. Revenue 80 lakhs expenditure 60 lakhs.

Jaisalmer State is almost entirely a sandy waste forming part of the great Indian Desert. The Chiefs of Jaisalmer belong to the Jadon clan and claim descent from Krishna. Jaisalmer City was founded in 1150 and the State was taken under British protection in 1818. In 1844, after the British conquest of Sind the forts of Shabgarh, Gardia, and Ghotara, which had formerly belonged to Jaisalmer were restored to the State. The present Chief is His Highness Maharajadhiraja Maharawal Shri Jwalsinghji Bahadur. Revenue about four lakhs.

Sirohi State is much broken up by hills of which the main feature is Mount Abu, 6,450 feet. The Chiefs of Sirohi are Deora Rajputs, a branch of the famous Chauhan clan which furnished the last Hindu kings of Delhi. The present capital of Sirohi was built in 1436. The city suffered in the eighteenth century from the wars with Jodhpur and the depredations of wild tribes. Jodhpur claimed suzerainty over Sirohi.

but this was disallowed and British protection was granted in 1853. The present ruler is His Highness Maharajah Dhiraj Maharao Sir Keer Singh Bahadur, G.C.I.M., K.C.I.S. The State is ruled by the Maharao with the assistance of a Diwan and other officials. Revenue about 7 lakhs. Expenditure 6 lakhs.

Jaipur State is the fourth largest in Rajputana. It consists, for the most part, of level and open country. The Maharaja of Jaipur is the head of the Kachwaha clan of Rajputa, which claims descent from Kusa, the son of Rama, king of Ajodhya, and the hero of the famous epic poem the Ramayana. The dynasty in Eastern Rajputana dates from about the middle of the twelfth century, when Amber was made the capital of a small State. The Chiefs of that State acquired fame as generals under the Mughals in later centuries. One of the best known being Sawai Jai Singh in the eighteenth century who was remarkable for his scientific knowledge and skill. It was he who moved the capital from Amber and built the present city of Jaipur and elevated the State above the principalities around. On his death a part of the State was annexed by the Jats of Bharatpur and internal disputes brought Jaipur to great confusion. British protection was extended to Jaipur in 1818 but the State continued to be disturbed and a Council of Regency was appointed which governed up to 1851 when Maharaja Ram Singh assumed full powers. He nominated as his successor Raim Singh who succeeded in 1880 under the name of Sawai Madho Singh II, and is the present ruler. He was born in 1861 and, in consideration of his youth, the administration was at first conducted by a Council under the joint presidency of the Maharaja and the Political Agent. He was invested with full powers in 1882. In 1887 his salute was raised from 17 to 19 guns as a personal distinction, followed in 1896 by two additional guns. In 1888 he was created a G.C.B. In 1901 a G.C.I.M. and in 1903 a G.C.V.O. In 1904 he was made honorary colonel of the 15th Rajputa, and in 1911 a Major General. In 1908 he was presented with the Honorary degree of LL.D. of Edinburgh University and in 1912 made a Donat of the Order of the Hospital of St. John of Jerusalem. Among important events of His Highness's rule may be mentioned the raising of the Imperial Service Transport Corps in 1888-90, the construction of numerous irrigation works, hospitals and dispensaries, and the gift of 20 lakhs as an endowment to the Indian People's Famine Relief Trust. Jaipur City is the largest town in Rajputana and is one of the few eastern cities laid out on a regular plan. It contains in addition to the Maharaja's Palace, many fine buildings. The administration of the State is carried on by the Maharaja assisted by a Council of ten members. The military force consists of an Imperial Service Transport Corps which has twice served in Frontier campaigns and about 3,000 infantry 700 cavalry and 800 artillery men. The normal revenue is about 65 lakhs. Expenditure about 59 lakhs.

Kishangarh State is in the centre of Rajputana and consists practically of two narrow strips of land separated from each other, the country being sandy, the southern generally flat and fertile. The Chiefs of Kishangarh

belong to the Rathor clan of Rajputa and are descended from Raja Udai Singh of Jodhpur, whose second son founded the town of Kishangarh in 1611. The State was brought under British protection in 1618. After various disputes necessitating British mediation, the State entered into good hands and was well ruled during the latter part of the nineteenth century. The present ruler is Major His Highness Maharaja Jodhbiraj Sir Madan Singh Bahadur, K.C.B., K.C.I.S. Umdal Rajpal Buland Mahan, who was born in 1884 and was invested with powers in 1905. He administers the State with the help of a Council of three members. Revenue 5.7 lakhs. Expenditure 4.6 lakhs.

Lawa State or Takurnat of Rajputana is a separate chieftainship under the protection of the British Government and independent of any Native States. It formerly belonged to Jaipur and then became part of the State of Tonk. In 1867 the Nawab of Tonk murdered the Thakur's uncle and his followers, and Lawa was then raised to its present State. The Thakurs of Lawa belonged to the Naruka sept of the Kachwaha Rajputa. The present Thakur Mangal Singh was born in 1878 and succeeded to the estate in May 1892. Revenue about Rs. 11,000.

Bundi State is a mountainous territory in the south east of Rajputana. The Chief of Bundi is the head of the Hara sept of the great clan of Chauhan Rajputa and the country occupied by this sept has for the last five or six centuries been known as Harasol. The State was founded in the early part of the fourteenth century and constant feuds with Mewar and Malwa followed. It threw in its lot with the Mahomedan emperors in the sixteenth century. In later times it was constantly ravaged by the Marathas and Pindaras and came under British protection in 1818 at which time it was paying tribute to Holkar. The present ruler of this State—which is administered by the Maharao Raja and a Council of 6 in an old fashioned but popular manner—is His Highness Maharao Raja Sir Raghubir Singh Bahadur, G.C.I.M., G.C.V.O., K.C.B. He was born in 1869 and succeeded in 1889. Revenue about 10 lakhs. Expenditure 9.6 lakhs.

Tonk State—Partly in Rajputana and partly in Central India, consists of six districts separated from each other. The ruling family belongs to the Pathans of Afghans of the Buner tribe. The founder of the dynasty was Amir Khan, a General in the army of Holkar at the end of the eighteenth century. He received a conditional guarantee of the lands he held under the Afghans from Holkar in 1817. His son was deposed in 1867 owing to misrule. The present ruler of the State is His Highness Nawab Sir Muhammad Ibrahim Ali Khan Bahadur, G.C.I.M. The administration is conducted by the Nawab and a Council of four members. But the Political Agent takes an active part in the guidance of the administration and the finances owing to the indifference of the State. Revenue 11 lakhs. Expenditure 9 lakhs.

Shahpura Chieftainship is a small pastoral State. The ruling family belongs to the Berozoda clan of Rajputa. The Chieftainship came into existence about 1682, being a grant from the Emperor Shah Jahan to one Sujan Singh. The present Chief is Sir Nihal Singh, K.C.I.S. and

succeeded by adoption in 1870 and received full powers in 1876. In addition to holding Shahpura by grant from the British Government the Raja (Dhira) possesses the estate of Kachhola in Vidisha for which he pays tribute and does formal service as a great noble of that State. Revenue 3 lakhs. Expenditure 2 6 lakhs.

Bharatpur State consists largely of an immense alluvial plain watered by the Ban-ganga and other rivers. It passed into the hands of Mahomed Ghori at the end of the twelfth century and for 500 years was held by whatever dynasty ruled in Delhi. The present ruling family are Jats, of the Sisouwar clan who trace their pedigree to the eleventh century. Bharatpur sided with the Marathas in the war of 1804 and was unsuccessfully besieged by Lord Lake. Owing to the appearance of an usurper operations against it were resumed in 1825 and in the following year the capital was captured by Lord Combermere. The present chief is a minor, Maharaja Sawai Kishna Singh Bahadur who was born in 1899 and succeeded in the following year, his father Ram Singh having been deposed for the murder of one of his servants. The administration is carried on by a Council of four members presided over by a Political Agent. Revenue 31 lakhs. Expenditure 28 lakhs.

Dholpur State the easternmost State in Rajputana has changed hands an unusual number of times. It was occupied by the British in 1808 and restored to the Gwalior Chief who formerly owned it but by a fresh arrangement of 1806 it was constituted a State with other districts and made over to Maharaj Rana Kirt Singh, in exchange for his territory of Gobad which was given up to Sindhu. The ruling family are Jats of the Ramraola clan the latter name being derived from a place near Agra where the family held land in the twelfth century. The present chief—who is assisted in the administration by three Ministers—is H. H. Maharaj Rana Udaibhan Singh Lokinder Bahadur. He was born in 1893 and succeeded in 1911. Revenue 15 lakhs. Expenditure 12 lakhs.

Karnali State is a hilly tract in Eastern Rajputana, of which the ruler is the head of the Jadon clan of Rajputa who claim descent from Krishna and were at one time very powerful. On the decline of the Mughal power the State was subjugated by the Marathas, but by the treaty of 1817 it was taken under British protection. Its subsequent history is of interest chiefly for a famous adoption case, in 1852. The present ruler is H. H. Maharaja Sir Banwar Pal Dew, G.C.I.E., who was born in 1864 installed in 1889, and invested with powers in 1899. He is assisted by a Council of five members. Revenue 8 lakhs. Expenditure 4 4 lakhs.

Kotah State belongs to the Hara sept of the clan of Chauhan Rajputa, and the early history of their house is, up to the 17th century identical with that of the Bundi family from which they are an offshoot. Its existence as a separate State dates from 1625. It came under British protection in 1817 but a dispute as to the succession made armed intervention necessary in 1831 when the Maharaja was defeated at the battle of Mangrol. This dispute (due to the fact that an arrangement had been made by which one prince—Zaim Singh—was recog-

nized as the titular chief and another—Umed Singh—as the guaranteed actual ruler) broke out again in the thirties when it was decided with the consent of the Chief of Kotah to dismember the State and create a new principality of Jhalawar as a separate provision for the descendants of Zaim Singh. The present ruler is H. H. Maharaja Sir Umed Singh Bahadur, G.O.S.I. who was born in 1873 and invested with full powers in 1899. In administration he is assisted by a Diwan. The most important event of his rule has been the restoration, on the deposition of the late chief of the Jhalawar State of 15 out of the 17 districts which had been ceded in 1838 to form that principality. Revenue 31 lakhs. Expenditure 26 lakhs.

Jhalwar State (for history see under Kotah) consists of two separate tracts in the south-east of Rajputana. The ruling family belongs to the Jhala clan of Rajputa. The last ruler was deposed for misgovernment in 1896, part of the State was reassigned to Kotah, and Kunwar Bhawan Singh son of Thakur Chhatar-sal of Fatehpur, was selected by Government to be the Chief of the new State. He was born in 1874 and was created a K.C.S.I. in 1908. He is assisted in administration by a Council and has done much to extend education in the State. Revenue 4 lakhs.

Bikaner State the second largest in Rajputana, consists largely of sandy and ill watered land. It was founded by Bika, a Rathor Rajput the sixth son of a Chief of Marwar in the 10th century. Rai Singh the first Raja, was one of Akbar's most distinguished generals, and built the main fort of Bikaner. Throughout the 18th century there was constant fighting between Bikaner and Jodhpur. In 1818 the Maharaja invited the assistance of British troops to quell a rebellion and subsequently a special force had to be raised to deal with the dacoits on the southern borders of the State. The Thakurs of the State continued to give trouble up to the eighties. The present chief is Colonel H. H. Maharajah Sir Gangra Singh Bahadur, G.O.S.I., G.O.M. & C. to the King who was born in 1880 and invested with full powers in 1898. He raised an Imperial Service Camel Corps which served in China and Somaliland and His Highness served in the former campaign himself being mentioned in despatches. In 1900 he was awarded the first class Kaiser I Hind medal for the active part he took in relieving the great famine of 1899-1900. He is an honorary LL.D. of Cambridge. In administration His Highness is assisted by five secretaries to each of whom are allotted certain departments and there is a Council of five members which is primarily a judicial body, but is consulted in matters of importance. The normal revenue is Rs. 26 lakhs and the expenditure 21 lakhs. There are no debts. A coal mine is worked at Palana 14 miles south of the capital.

Alwar State is a hilly tract of land in the East of Rajputana. Its chiefs belong to the Lalawat branch of the Naruka Rajputa, an offshoot from the Kachhwa Rajputa, of whom the Maharaja of Jaipur is the head. The State was founded by Erab Singh, who before his death in 1761 had secured possession of large portions of the Jaipur State. His successor

The Native States—Central India.

and a treaty to co-operate with Lord Lake in the year 1803 and an alliance was concluded with him in that year, when the boundaries of the States as now recognized were fixed. Various rebellions and disputes about succession mark the history of the State during the earlier part of the nineteenth century. The present chief, H. K. Lakshmi Bai Maharaja Sir Jay Singh Bahadur, K.C.S.I., K.O.L.S., who was born in 1882, succeeded his father in 1892 and was invested with power in 1908. He carries on the administration with the assistance of a Council of four Ministers. Members of His Highness, Council and various heads of departments. The normal revenue and expenditure are about Rs. 22 lakhs a year. The State maintains an Imperial service regiment of cavalry another of Infantry and an Irregular force. The late Maharaja was the first chief in Rajputana to offer (in 1888) aid in the defence of the Empire.

The capital is Alwar on the Rajasthan-Malwa Railway 28 miles south-west of Delhi.

RAJPUTANA.

Agent to Government—Sir E. G. Colvin

JAFRA.

Resident—Lieut.-Col. J. L. Kaya.

JAIPUR.

Resident—Viscount

EASTERN RAJPUTANA STATES

Political Agent—Lieut. Col. A. D. A. G. Banner

1843

WESTERN RAJPUTANA STATES

Resident—Lieut. Col. C. J. Windham.

HARAOYI AND TONE.

Political Agent—Lieut. H. B. Peacock

KOTAH AND JHALAWAR.

Political Agent—Lieut.-Col. H. B. Peacock.

CENTRAL INDIA AGENCY

Central India is the name given to the country occupied by the Native States grouped together under the supervision of the Political Officer in charge of the Central India Agency. These States lie between 21° 24' and 26° 32' N. lat. and between 74° 0' and 82° 0' E. long. The British districts of Jhansi and Lalitpur divide the agency into two main divisions—Bundelkhand and Baghelkhand lying to the east, and Central India proper to the west. The total area covered is 78,772 square miles, and the population (1911) amounts to 93,980. The great majority of the people are Hindus. The principal States are eight in number—Gwalior, Indore, Bhopal, Rewa, Dhar, Jaora, Datta and Orcha, of which two, Bhopal and Jaora, are Mohammedan and the rest are Hindu. Besides these there are a multitude of petty States held by their rulers under the immediate guarantee of the British Government, but having feudal relations with one or other of the larger States. The total number of States amounts to 153. For administrative purposes they are divided into the following groups: Baghelkhand Agency, 13 States (principal State Rewa); Bhopal Agency, 19 States (principal Bhopal); State Bhopawar Agency, 21 States (principal State Dhar); Bundelkhand Agency, 22 States (principal State Datta and Orcha); Gwalior Agency, 33 States (principal State Gwalior); Indore Agency, 9 States (principal State Indore); Malwa Agency, 38 States (principal State Jaora). The Agency may be divided into three natural divisions, the plateau, lowlying, and hilly. The plateau tract includes the Malwa plateau, the highland tract stretching from the great wall of the Vindhya to Marwar, the land of open rolling plains. The lowlying tract comprises Northern Gwalior and stretches across the Bundelkhand and Baghelkhand up to the Malwa Range. The hilly tract lies along the western of the Vindhya and the Satpura. There are a little practiced, the inhabitants are mostly members of the wild tribes. The boundaries of the different States are much unsettled, and their political relations with the Government of India and each other are very complex. Some Chiefs have direct treaty engagements with the British Government.

The following list gives the approximate area, population and revenue of the eight principal States above mentioned—

Name.	Area in square miles.	Population.	Revenue.
Gwalior	25,133	3,102,279	Rs. lakhs.
Indore	9,506	1,007,856	140
Bhopal	6,902	730,383	70
Rewa	13,000	1,514,843	30
Dhar	1,788	154,070	68
Jaora	568	75,951	9
Datta	611	154,608	8
Orcha	2,079	330,032	9
			11

Gwalior—The house of Sindha traces its descent to a family of which one branch held the hereditary post of patal in a village near Satara. The head of the family received a patent of rank from Aurangzeb. The founder of the Gwalior House was Hanaji Sindha who is said to have been a personal attendant on the Peshwa Baji Rao. In 1723 together with Malhar Rao Holkar, the founder of the house of Indore, he was authorised by the Peshwa to collect revenues and he fixed his headquarters at the ancient city of Ujjain, which became the capital of the Sindha dominions. Gwalior subsequently played a leading part in shaping the history of India. The reverses which Sindha's troops met with at the hands of the British in 1773 and 1780 led to the treaty of Salbai (1782), which made the British arbiters in India and recognised Sindha as an independent Chief and not as a vassal under the Peshwa. Subsequently Sindha's military power, developed by the French Commander DeBologne, was completely destroyed by the British victories of Almorah, Assaye, Amargarh and Laswari.

The present ruler is Major-General M. H. Mahadho Rao Sindha, C.O.V., G.O.S.I., A.D.C. to the King. He succeeded in 1886 and obtained powers in 1894. In 1901 he went to China during the war he held the rank of honorary Major-General of the British Army and the honorary degree of LL.D., Cambridge. The

administration is controlled by the Maharaja assisted by five members of the Rajpuri-khans.

The northern part of the State is traversed by the G. I. P. Railway and two branches run from Bhopal to Ujjain and from Bina to Bannu. The Gwalior Light Railway runs for 250 miles from Gwalior to Bhind, from Gwalior to Sheopur and from Gwalior to Bhopal. The main industries are cotton spinning which is done all over the State. Fine muslins made at Chandni, leather work etc. The State maintains three regiments of Imperial Service Cavalry two battalions of Imperial Service Infantry and a transport corps. Lashkar the capital city is two miles to the south of the ancient city and the fort of Gwalior. Annual expenditure 183 lakhs.

Indore.—The Holkars of Indore belong to the shepherd class, the founder of the house Malhar Rao Holkar, being born in 1693. His soldierly qualities brought him to the front under the Peshwa who took him into his service and employed him in his conquests. When the Maratha power was broken at the battle of Panipat in 1761 Malhar Rao had acquired vast territories stretching from the Deccan to the Ganges. He was succeeded by a lunatic son who again was succeeded by his mother Ahilya Bai, whose administration is still looked upon as that of a model ruler. Disputes as to the succession and other causes weakened this powerful State, and, when it assumed a hostile attitude on the outbreak of war in 1817 between the British and the Peshwa Holkar was compelled to come to terms. The Treaty of Mandasir in 1818 still governs the regulations existing between the State and the British Government. In the mutiny of 1857 when Holkar was unable to control his troops he personally gave every possible assistance to the authorities at Bhow.

In 1903 Siraji Rao abdicated in favour of his son His Highness Maharaja Tukoji Rao Holkar the present ruler who was born in 1890 and was formally invested with ruling powers in November 1911. In the administration His Highness is assisted by his Chief Minister and a Council of 5 Ministers. The State Army consists of 510 Imperial Service Troops and 1,620 State forces. The capital is Indore City on the Ajmer-Khandwa Section of the Rajputana Malwa Railway. The ordinary revenue for 1914-15 is estimated at Rs. 85,49,400 and the ordinary expenditure estimated for that year is about the same amount.

Bhopal.—Bhopal State was founded by Dost Muhammad Khan, an Afghan from Tirmah, who went to Delhi in 1708 in search of employment. Obtaining a lease of the Berasia Pergana he extended his dominions, assumed independence, and adopted the title of Nawab. Of subsequent rulers the most noticeable is Marudatta, a lady of remarkable power, who controlled the State for 60 years. In the early part of the nineteenth century the State successfully withstood the combined attacks of Gwalior and Nagpur, and, by the agreement of 1817 Bhopal undertook to assist the British with a contingent force and to co-operate against the Pindari bands.

The present Begum is Her Highness Nawab Sultan Jahan, C.S.I., C.I.E., who succeeded in 1901 and personally conducts the administration of her State assisted by her eldest son, Nawab Mahomed Nazim Khan.

The State Army consists of 2,500 men, including a regiment of Imperial Service Cavalry commanded by a son of the present ruler. The capital is Bhopal City at the Junction of the Midland Section of the G. I. P. Railway and the Bhopal-Ujjain Railway.

Rewah.—This State lies in the Baghelkhand Agency and falls into two natural divisions separated by the scarp of the Kaimur range. Its Chiefs are Baghel Rajputs descended from the Solanki clan which ruled over Gajrat from the tenth to the thirteenth century. In 1812 a body of Pindaries raided Mirzapur from Rewah territory and the chief, who had previously rejected overtures for an alliance, was called upon to accede to a treaty acknowledging the protection of the British Government. During the Mutiny, Rewah offered troops to the British, and for his services then, various pardons, which had been seized by the Marathas, were restored to the Rewah Chief. The present chief is H. H. Maharaja Sir Venkat Ramani Singh, C.S.I., who was born in 1876. He is assisted in the administration by two Commissioners one for revenue matters and one for judicial. The State force consist of about 1,700 men. The State is famous for its archaeological remains and is rich in minerals, coal being mined at Umaria. The average expenditure is Rs. 11 lakhs.

Dhar.—This State, under the Bhopawar Agency takes its name from the old city of Dhar long famous as the capital of the Paramara Rajputs, who ruled over Malwa from ninth to the thirteenth century and from whom the present chiefs of Dhar—Ponwar Marathas—claim descent. In the middle of the 18th century the Chief of Dhar, Anand Rao was one of the leading chiefs of Central India sharing with Holkar and Shinde the rule of Malwa. But in 1819 when a treaty was made with the British, the State had become so reduced that it consisted of little more than the capital. The ruler is H. H. Raja Sir Udaji Rao Ponwar, C.S.I., who was born in 1896, and has control of all civil, judicial, and ordinary administrative matters. There are 22 feudatories, of whom 13 hold under a guarantee from the British Government. The average expenditure is about 8 lakhs.

Jaora State.—This State is in the Malwa Agency and has its head quarters at Jaora town. The first Nawab was an Afghan from Swat, who had come to India to make his fortune, found employment under the freebooter Amir Khan, and obtained the State after the treaty of Mandasir in 1817. The present chief is Major H. H. Sir Mahomed Irifkhar Ali Khan, C.I.E., who was born in 1883 and is an honorary major in the Indian Army. The soil of the State is among the richest in Malwa, being mainly of the best black cotton variety, bearing excellent crops of poppy. The average annual revenue is Rs. 7,72,000.

Ratnam State.—In the Malwa Agency, has an area of 902 square miles. The Rajas are Rathor Rajputs of the Jodhpur house, the present chief being H. H. Raja Sajjan Singh, who succeeded in 1893. Revenue about five lakhs.

Bundi State.—The chiefs of this State, in the Bundelkhand Agency, are Bundela Rajputs of the Orchha house. The territory was granted by the chief of Orchha to his son Ahaywan Rao in 1820, and this was extended by conquest and

by grants from the Delhi emperors. The present chief is H. H. Maharaja Lokendra Gobind Singh Bahadur who was born in 1886 and succeeded in 1907.

Orchha State—The chiefs of this State are Bundela Rajputs claiming to be descendants of the Gahawars of Benares. It was founded as an independent state in 1045 A.D. It entered into relations with the British by the treaty made in 1812. The present ruler is His Highness Sir Pratap Singh GCSI G.C.I.E. who was born in 1864. He has the title of Saranad I Rajah of Bundelkhand. Maharaja Mahendra Sawai Bahadur in 1811 had a population of 100,000 and was at a distance of 100 miles. The capital is Tikantgarh, 6 miles from Lucknow on the G. I. P. Railway. Orchha in old capital has fallen into decay but is a place of interest on account of its magnificent buildings of which the finest were erected by Sir Nigao Deo the most famous ruler of the State (1805-1871).

Agent to Governor General—O. V. Loquett

INDRE

Resident—(L. S. Russell)

BHUGAL

Political Agent—W. S. Davis

BUNDALKHAND

Political Agent—Lieut. Col. P. L. A. Spence

J. B. BIKHAR

Political Agent—Lieut. Col. S. H. Girdle

BHUPAWAR

Political Agent—L. M. Trump

Sikkim

Sikkim is bounded on the north and north east by Tibet on the south east by Bhutan on the south by the British district of Darjiling and on the west by Nepal. The population consists of Bhutia, Lepcha and Nepali. It forms the direct route to the Chumbi Valley in Tibet. The main axis of the Himalaya which runs east and west forms the boundary between Sikkim and Tibet. The Singalila and Chola ranges which run southward from the main chain separate Sikkim from Nepal on the west and from Tibet and Bhutan on the east. From the eastern flank of the Singalila range rise the great snow peaks of Kinlungjung, 28,140 feet, one of the highest mountains in the world. It throws out a second spur terminating at Tendong. The Chola range which is much better than that of Singalila leaves the main chain at the Dongkya mountain.

Tradition says that the ancestors of the Rajas of Sikkim originally came from eastern Tibet. The State was twice invaded by the Gurkhas at the end of the eighteenth century. On the outbreak of the Nepal War in 1814 the British formed an alliance with the Raja of Sikkim and at the close of the war the Raja was rewarded by a considerable accession of territory. In 1814 the Raja granted the site of Darjiling to the British and received Rs. 3,000 annually in lieu of it. This grant was stopped and a part of the State was annexed for the seizure and detention of Dr. Campbell the Superintendent of Darjiling and Dr. Hooker the famous naturalist in 1849. The State was previously under the Government of Bengal, but was brought under the direct supervision of the Government of India in 1906.

The State is thinly populated, the area being 2,818 square miles and the population 87,980 chiefly Buddhists and Hindus. The most important crop is maize. There are several trade routes through Sikkim from Darjiling District into Tibet. In the convention of 1890 provision was made for the opening of a trade route but the results were disappointing and the failure of the Tibetans to fulfil their obligations resulted in 1904 in the despatch of a mission to Lhasa where a new convention was signed. Trade with the British has increased in recent years and in 1911-12 reached total value of Rs. 24 lakhs. A number of good roads have been constructed in recent years. The present ruler is His Highness Maharajah Ta-bis Namgyal who was born in 1893 and succeeded in 1914. The Political Officer stationed at Gangtokh advises and assists the Maharajah and his Council. The average revenue is Rs. 2,35,000.

Political Officer in Sikkim—C. A. Bell, C.M.G.

Bhutan

Bhutan extends for a distance of approximately 190 miles east and west along the southern slopes of the central axis of the Himalayas, adjacent to the northern border of Eastern Bengal and Assam. Its area is 38,000 square miles and its population consisting of Buddhists and Hindu has been estimated at 300,000. The country formerly belonged to a tribe called Tekpa but was wrested from them by some Tibetan ruler about the middle of the seventeenth century. British relations with Bhutan commenced in 1772 when the Bhotias invaded the principality of Cooh-Bihar and British aid was invoked by that State. After a number of raids by the Bhutanese into Assam an envoy (the Hon. A. Bala) was sent to Bhutan who was grossly insulted and compelled to sign a treaty surrendering the Duars to Bhutan. On his return the treaty was disallowed and the Duars annexed. This was followed by the treaty of 1865 by which the State's relations with the Government of India were satisfactorily regulated. The State formerly received an allowance of half a lakh a year from the British Government in consideration of the cession in 1865 of some areas on the southern borders. This allowance was doubled by a new treaty concluded in January 1910 by which the Bhutanese Government bound itself to be guided by the advice of the British Government in regard to its external relations while the British Government undertook to exercise no interference in the internal administration of Bhutan. On the occasion of the Tibet Mission of 1904 the Bhotias gave strong proof of their friendly attitude. Not only did they consent to the survey of a road through their country to Chumbi, but their ruler the Tongsa Penlop accompanied the British troops to Lhasa, and assisted in the negotiations with the Tibetan authorities. For these services he was made a K.C.I.E. and he has since entertained the British Agent hospitably at his capital. The ruler is now known as H. H. the Maharaja of Bhutan Sir Ugyen Wangchuk, K.C.S.I. K.C.I.E. At the head of the Bhutan Government there are nominally two supreme authorities the Dharma Raja known as Shabdring Rinpoche the spiritual head and the Deb or Depa Raja the temporal ruler. The Dharma Raja is

regarded as a very high incarnation of Buddha far higher than the ordinary incarnations in Tibet of which there are several hundreds. On the death of a Dharma Raja a year or two is allowed to elapse and his reincarnation then takes place always in the Choje, or royal family of Bhutan.

Cultivation is backward and the chief crop is maize. The Military force consists of local levies under the control of the different chiefs. There are no military roads.

Nepal.

The kingdom of Nepal is a narrow tract of country extending for about 200 miles along the southern slope of the central axis of the Himalayas. It has an area of about 34,000 square miles with a population of about 4,000,000. Mostly Hindu, the greater part of the country is mountainous, the lower slope being cultivated. Above there is a rugged broken wall of rock leading up to the chain of snow clad peaks which culminate in Mount Everest (29,000 ft.) and which of slightly less altitude, the country is split up into several small kingdoms under Nepali kings. The Gurkhas under Prithvi Narayan Shah overran and conquered the different kingdoms of Patan, Kathmandu and Bhaktapur and other places during the latter half of the 18th century and since then have been rulers of the whole of Nepal. In 1846 the Rana of the Pans family obtained from the sovereign the prerogative to sit in the office of Prime Minister of Nepal and the right is still enjoyed by him and his line. In 1900 Jung Bahadur paid a visit to India and was thus the first Hindu Chief to leave India and to become acquainted with the power and resources of the British nation. His relations of Nepal with the Government of India are regulated by the treaty of 1816 and subsequent agreements, but the political status of Nepal is difficult to define. It may be said to stand intermediate between Afghanistan and the Native States of India. The point of resemblance to Afghanistan is in the complete freedom which Nepal enjoys in the management of its internal affairs while in both countries foreign relations are controlled by the Indian Government. The analogy to the Native States is that by treaty Nepal is obliged to receive a British Resident at Kathmandu and cannot take

Europeans into service without the sanction of the Indian Government. But for the reasons above given the functions of the Resident differ from those that are commonly exercised by Residents at Native Courts.

Nepal is also brought into relations with China whose nominal suzerainty she acknowledged in an influence that is slight and consists in the despatch every five years of a mission with presents to the ruling Emperor. This mission though it may at one time have carried a certain amount of political significance has now mainly a trading aspect. Its expenses are paid by the Chinese from the time it crosses the Nepalese frontier and a brisk trade is carried on throughout the journey.

From the foregoing account of the history of Nepal it will be seen that the Government of the country has generally been in the hands of the Minister of the day. Since the time of Jung Bahadur this system of government has been clearly laid down and defined. The sovereign or Maharajadhiraj as he is called is, but a dignified figure-head whose position can best be likened to that of the Emperor of Japan during the Shogunate. The real ruler of the country is the Minister who while enjoying complete monopoly of power couples with his official rank the exalted title of Maharaja. Next to him come the Commanders in Chief, who ordinarily succeeds to the office of Minister for present Minister at the head of affairs of Nepal is Maharaja Sir Chandra Shum Shere Jung Bahadur Rana G.C.S.I. G.C.M.G. G.C.V.O. and Honorary Major General in the British Army. He has been Prime Minister and Commander of Nepal since June 1901.

Rice, wheat and maize form the chief crops in the lowland. Mineral wealth is supposed to be great but like other sources of revenue has not been developed. Communications in the State are primitive. Its revenue is about two crores of rupees per annum. The standing army is limited at 45,000 the bulk of it being filled by recruits of the Afghans. The State is of considerable importance and many of the sites connected with legends of Buddha life have been identified in it by the remains of its ancient pillars.

Resident: Col. C. J. Mansuets Smith V.C. C.V.O. C.I.E.

NORTH WEST FRONTIER STATES

The native states of the North West Frontier Province are Amb, Chitral, Dir, Baramulla (Baramulla) and Poonch. The total area is about 17,000 square miles and the population mainly Mohammedan is 1,822,000. The average annual revenue of the first four is about Rs. 4,60,000 that of Poonch is unknown.

Amb—Is only a village on the western bank of the Indus in the tract of Lalamwala.

Chitral—Runs from Dir to the south of the Hindu Kush range in the north and has an area of about 1,500 square miles. The ruling dynasty has maintained itself for more than three hundred years, during the greater part of which the State has constantly been at war with its neighbours. It was visited in 1885 by the Lockhart Mission and in 1889 on the establishment of a political agency in Gilgit the ruler

of Chitral received an annual subsidy from the British Government. That subsidy was increased two years later on condition that the ruler Aman ul Mulk accepted the advice of the British Government in all matters connected with foreign policy and frontier defence. His sudden death in 1890 was followed by a dispute as to the succession. The eldest son, Miran ul Mulk was recognised by government but he was murdered in 1890. A religious war was declared against the middle and the Agat of Gilgit who had been sent to Chitral to report on the situation was besieged with his escort and a force had to be despatched (April 1890) to their relief.

The three valleys of which the State consists are extremely fertile and continuously cultivated. The internal administration of the

country is conducted by the *Mohhtar* and the foreign policy is regulated by the Political Agent.

Dir—The territories of this State, about 5,000 square miles in area, include the country drained by the Panjkora and its affluents down to the junction of the former river with the Bajaur or Rud, and also the country east of this from a point a little above Lurah in Upper Swat down to the Dush Khel Country, following the right bank of the Swat river throughout. The Khan of Dir is the overlord of the country exacting allegiance from the petty chiefs of the clans. Dir is mainly held by Yusufai Pathans, the old non-Pathan inhabitants being now confined to the upper portion of the Panjkora Valley known as the Bashkar.

Bajaur—Nawagai is a tract of country

included in the territories collectively known as Bajaur which is bounded on the north by the Panjkora river on the east by the Uman Khel and Mohmand territories and on the west by the watershed of the Rana river which divides it from Afghanistan. The political system, if it can be termed system, is a communal form of party government, subject to the control of the Khan of Nawagai who is nominally the hereditary chief of all Bajaur. Under him the country is divided into several minor Khanates each governed by a chieftain usually a near relative of the Khan. But virtually the authority of the chieftains is limited to the rights to levy *tithe*, or *ushar* when they can enforce its payment, and to exact military service if the tribesmen choose to render it.

Political Agent for Dir, Swat and Chitral
Major W. J. Keen

NATIVE STATES UNDER LOCAL GOVERNMENTS

The Madras Presidency includes 5 Native States covering an area of 10,037 square miles. Of these the States of Travancore and Cochin represent ancient Hindu dynasties. Pudukkottai is the inheritance of the chieftain called the Tondiman. Banganapalle and Sandur two petty States of which the first is ruled by a Nawab lie in the centre of two British districts

Name	Area sq miles	Popula- tion	Approx- imate Revenue in lakhs of rupees
Travancore	7,126	3,428,975	128
Cochin	1,361	918,110	47
Pudukkottai	1,178	411,878	16
Banganapalle	250	79,356	2.8
Sandur	181	13,511	1.7 1.2

Travancore—This State occupies the south-west portion of the Indian Peninsula, forming an irregular triangle with its apex at Cape Comorin. The early history of Travancore is in great part traditional, but there is little doubt that R. R. the Maharaja is the representative of the Chera dynasty, one of the three great Hindu dynasties which exercised sovereignty at one time in Southern India. The petty chiefs who had subsequently set up as independent rulers within the State were all subdued, and the whole country included within its present boundaries, was consolidated and brought under one rule, by the Maharaja Marthanda Varma (1729-68). The English first settled at Anjengo a few miles to the north of Travandrum, and built a factory there in 1684. In the wars in which the East India Company were engaged in Madras and Tinnevely in the middle of the 18th century the Travancore State gave assistance to the British authorities. Travancore was reckoned as one

of the staunchest allies of the British Power and was accordingly included in the Treaty made in 1784 between the East India Company and the Sultan of Mysore. To protect the State from possible invasions by Tipu, an arrangement was come to in 1788 with the East India Company and in 1795 a formal treaty was concluded by which the Company agreed to protect Travancore from all foreign enemies. In 1805 the annual subsidy to be paid by Travancore was fixed at 8 lakhs of rupees.

The present ruler is His Highness Maharaja Sri Rama Varma 1811-18, who was born in 1907 and ascended the throne in 1885. The government is conducted in his name with the assistance of a Dewan (M. Krishnan Nair). The work of legislation is entrusted to a Council brought into existence in 1888. An assembly meets once a year when its members are able to bring suggestions before the Dewan. The State supports a military force of 1,474 men. Education has advanced considerably in recent years and the State takes a leading place in that respect. The principal food grain grown is rice, but the main source of agricultural wealth is the coconut. Other crops are pepper, areca nut, jack fruit and tapioca. Cotton weaving and the making of matting from the coir are the chief industries. The State is well provided with roads and with a natural system of back waters, besides canals and rivers navigable for country crafts. Two lines of railways intersect the country, the Cochin Shoreline in the north-west and the Tinnevely Quilon passing through the heart of the State. A third line from Quilon to Travandrum, is in process of construction. The capital is Travandrum.

Political Agent R. A. Graham

Cochin—This State on the west coast of India is bounded by the Malabar District of the Madras Presidency and the State of Travancore. Very little is known of its early history. According to tradition, the Rajas of Cochin hold the territory in right of descent from Cheraman Perumal, who governed the whole country of Kerala including Travancore and Malabar, as

Viceroy of the Chola Kings about the beginning of the ninth century and afterwards established himself as an independent ruler. In 1502 the Portuguese were allowed to settle in what is now British Coochin and in the following year they built a fort and established commercial relations in the state. In the earlier wars with the Zamorin of Calicut they assisted the Rajas of Cochin. The influence of the Portuguese on the west coast began to decline about the latter part of the seventeenth century and in 1683 they were ousted from the town of Cochin by the Dutch with whom the Raja entered into friendly relations. About a century later in 1769 when the Dutch power began to decline, the Raja was attacked by the Zamorin of Calicut who was expelled with the assistance of the Raja of Travancore. In 1776 the State was conquered by Hyder Ali to whom it remained tributary and subordinate and subsequently to his son Tippu Sultan. A treaty was concluded in 1791 between the Raja and the East India Company by which His Highness agreed to become tributary to the British Government for his territories which were then in the possession of Tippu and to pay a subsidy

His Highness Mr. Sri Rama Varma G.C.S.I. (C.I.B.) who was born in 1832 and who ascended the throne in 1896 having abdicated in December 1914. His Highness Sri Rama Varma who was born on 6th October 1898 succeeded to the throne and was duly installed as Raja on the 21st January 1915. The administration is conducted under the control of the Raja whose chief Minister and Executive Officer is the Dewan (J. W. Horn). The forests of Cochin form one of its most valuable assets. They abound in teak, ebony, blackwood and other valuable trees. Rice forms the staple of cultivation. Coconuts are largely raised in the sandy tracts and their products form the chief exports of the State. Communications by road and backwaters are good, and the State owns a line from Shoranore to Ernakulam the capital of the State and a Forest Steam Tramway used in developing the forests. The State supports a force of 274 men.

Political Agent A. F. Forbes

Pudukottai.—This State is bounded on the north and west by Trichinopoly, on the south by Madura and on the east by Tanjore. In early times a part of the State belonged to the Chola Kings and the southern part to the Pandya Kings of Madura. Relations with the English began during the Carnatic wars. During the siege of Trichinopoly by the French in 1757, the Tondaiman of the time did good service to the Company's cause by sending them provisions although his own country was on at least one occasion ravaged as a consequence of his fidelity to the English. In 1766 he sent some of his troops to assist Muhammad Ali in settling the Madurai and Tanjore countries. Subsequently he was of much service in the wars with Hyder Ali. His services were rewarded by a grant of territory subject to the conditions that the district should not be alienated (1806). Apart from that there is no

treaty or arrangement with the Raja. The present ruler is Sri Brahmadamba Sri Marthanda Bhavaraya Tondaiman Bahadur G.C.I.B. who is eighth in descent from the founder of the family. He succeeded in 1888. The Collector of Trichinopoly is ex-officio Political Agent for Pudukottai. The administration of the State under the Raja is entrusted to a State Council of three members a Superintendent (Mr. J. T. Gwynn, I.C.S.) Dewan and Councillor. The various departments are constituted on the British India model. The principal food crop is rice. The forests which cover about one-seventh of the State contain only small timber. There are no large industries. The State is well provided with roads but Pudukottai is the only municipal town in the State.

Political Agent A. L. Vibert.

Banganapalle.—This is a small State in two detached portions which in the eighteenth century passed from Hyderabad to Mysore and back again to Hyderabad. The control over it was ceded to the Madras Government by the Nizam in 1809 and subsequently passed through a long period of mismanagement ending in the removal of the Nawab Fateh Ali Khan in 1805. The present ruler is Nawab Sayid Gulam Ali Khan a Mahomedan of the Shia Sect who administers the State with the assistance of the Dewan Khaja Akbar Hussain. The chief food grains grown are rice, wheat and cholam. Roads have recently been constructed and the capital Banganapalle is being gradually opened up with broad thoroughfares. The Nawab pays no tribute and maintains no military force. Sericulture, lac cultivation and weaving industries have lately been started in the State by the Superintendent of Industries.

Political Agent H. A. B. Vernon, I.C.S.

Saudur.—This is a small State almost surrounded by the District of Bellary. The Collector of which is the Political Agent. Its early history dates from 1728 when it was first seized by an ancestor of the present Raja a Maratha named Shilpi Rao. It subsequently became a vassal to the Peshwa after whose downfall a formal title for the State was granted by the Madras Government to one Siva Rao. The present ruler is H. H. Raja Srimant Vinkata Rao who was born in 1893. The State is administered by the Raja and the Dewan (M. R. R. Subraya Modhar Ayyangar). The Raja pays no tribute and maintains no military force. The most important staple crop is cholam. Teak and sandal wood are found in small quantities in the forests.

The minerals of the State possess unusual interest. The hematites found in it are probably the richest ore in India. An outcrop near the southern boundary forms the crest of a ridge 150 feet in height which apparently consists entirely of pure steel grey crystalline hematite (specular iron) of intense hardness. Some of the softer ores used to be smelted, but the industry has been killed by the cheaper English iron. Manganese deposits have also been found in three places, and in 1911 12 over 85,000 tons of manganese ore were transported by one company.

Political Agent A. F. G. Moscardi

UNDER THE GOVERNMENT OF BOMBAY

More than a half of the total number of the very various units counted as Native States in India are under the Government of Bombay. The characteristic feature of the Bombay States is the great number of petty principalities, the population of Kathiawar alone contains nearly two hundred separate States. The recognition of the administrative jurisdictions is due to the circumstance that the early Bombay Administrators were induced to treat the *de facto* exercise of civil and criminal jurisdiction by a ruler as if it came into it with a quasi-sovereign status. The rule of such larger principalities the minor states are continually offering disintegration. In Bombay as in Central India there are to be found everywhere the traces of disintegration and disintegration left by the eighteenth century. In no part of India is there a greater variety of principalities. The bulk of them are of modern origin, the majority having been founded by Muslims in the general scramble for power in the middle of the eighteenth century, but several Rajput houses date from earlier times. In the ruins of ancient history are to be found at Sachin, Jamnagar and Dajarabad, where the site of a forgotten ancient city could be traced from Al-Samir al-Din, the Persian poet, till the present. A few aboriginal chiefs still remain, but rise and fall as the winds of the past, and the fully conqueror that time, the Mah and the Narbada rivers.

The control of the Bombay Government is exercised through Political Agents whose positions and duties vary greatly in accordance with the more important States. In some cases they are confined to the giving of advice and in others to a general surveillance. In other cases they are entrusted with an administrative function in the administration of the States whose rulers are minor—and the number of these is always large—are directly managed by Government officers. Some of the States are subordinate to other States and not in direct relations with the British Government. In these cases the status of the feudatories is usually guaranteed by Government. The powers of the chief are regulated by treaty or custom and range downwards to a mere right to collect revenue in a share of a village without criminal or civil jurisdiction, or in the case of the petty chiefs of Kathiawar.

The Native States in the Bombay Presidency number 377. Area 95,711 square miles. Population (1911) 7,411,675. They are divided for administrative purposes into the following agencies—Bijapur Agency, 2 states (but 1 state); Dharwar Agency, 1 state (Bhavnagar); Kathiawar Agency, 15 states (principal state is Bhavnagar); Dharwad Agency, Gondal, Junagadh, Nawanganagar; West Khandesh Agency, 20 states; Kolaba Agency, 1 state (Jamnagar); Kolhapur Agency, 9 states (principal state Kolhapur with 9 feudatory states); Malabar Agency, 51 states (principal state Idar); Nasik Agency, 1 state (Surgana); Palanpur Agency, 17 states (principal state Palanpur); Poona Agency, 1 state (Dhor).

Tewa Kantha Agency, 62 states (principal state Rajpura); Satara Agency, 2 states (Savata Agency, 1 state; Sholapur Agency, 1 state; Sukkur Agency, 1 state (Kharpur); Surat Agency, 1 state; Thana Agency, 1 state (Jatpur). The table below gives detail of the more important States—

State	Area in sq. mile	Population	Approximate Revenue in lakh of rupees
Bhavnagar	2,560	441,067	41
Cutch	1,616	313,429	25
Dharwad Agency	1,150	79,142	15
Gondal	1,054	161,416	15
Idar	1,669	40,811	0
Junagadh	3,284	4,400	26
Kathiawar	6,050	23,788	15
Kolhapur	310	43,341	57
Nawanagar	3,701	44,400	22
Palanpur	1,750	23,000	5
Rajpura	1,100	101,880	0

Bijapur Agency—This comprises the Satara, Junagadh and the small state of Dharwad (total area 950 square miles). The latter (which has an area of 16 square miles) being an integral part of the State of Tithi to which it will figure on the division of the present. The ruler of the latter is the ruler of the latter. On the annexation of Satara in 1849, Junagadh and Dharwad, like other States, were placed under the control of the British Government. The latter has more than once intervened to settle the political affairs of the latter and in consequence of numerous acts of oppression on the part of the latter ruler was compelled to assume direct management from 1874 to 1889. The chief of the latter who belongs to the Maratha (Koli) tribe, Chhatrapati, ranks as a first class Sardar. He is styled *Waghmal*. He holds a variety of adoption and the succession follows the rule of primogeniture. The small state of Dharwad is managed by a Rana aided by her *Karbhari*. The revenue of the Agency is about 3 lakh chiefly derived from land revenue. The latter State pays to the British Government Rs. 6,400 per annum in lieu of horse contingent and is 4,540 on account of Sardeshmukhi rights.

Political Agent, Jahapur, Kankhru, Navroli, Kankhru, Collector of Jahapur.

Cutch—The State is bounded on the north and north-west by India on the east by the Palanpur Agency and on the south by the Peninsula of Kathiawar and the Gulf of Cutch and the south-west by the Indian Ocean. Its area, exclusive of the great salt marsh called the Rann of Cutch, is 1,616 square miles. The capital is Bhuj, where the ruler, Chhatrapati (the Rao) the Highness, Mahi Rao, Sri Kharagji, Bhaji Bhadur, etc., resides. From its isolated position the special characteristics of its people, their peculiar dialect and their strong feeling of personal loyalty to their ruler, the peninsula of Cutch has more of the elements of a distinct nationality than any other of the dependencies of Bombay. The earliest historic notices of the State occur in the Greek writers. Its modern

history dates from its conquest by the Sind tribe of Samma Rajputs in the fourteenth century. The section of the Sammas forming the ruling family in Cutch were known as the Jadogas or children of Jada. The British made a treaty with the State in 1816 but three years after the conduct of the ruler made it necessary to occupy the capital and dispossess him. There is a fair proportion of good arable soil in Cutch and wheat, barley and cotton are cultivated. Both iron and coal are found but are not worked. Cutch is noted for its beautiful embroidery and silverwork and its manufactures of silk and cotton are of some importance. Trade is chiefly carried by sea. The ruling chief is the supreme authority. A few of the Bhayads are invested with jurisdictional powers in varying degrees in their own estates and over their own ryots. A notable fact in connection with the administration of the Cutch State is the number and position of the Bhayad. These are Rajput nobles forming the brotherhood of the State. They were granted a share in the territories of the ruling chief in provision for their maintenance and are bound to furnish troops on an emergency. The number of these chiefs is 17 and the total number of the Jadga tribe in Cutch is about 16,000. The British military force having been withdrawn from Bhuj the State now pays Rs 82,500 annually to the British Government. The military force consists of about 1,000 in addition to which there are some irregular infantry and the Bhayads could furnish on requisition a mixed force of four thousand.

Political Agent Major E. S. Prttinger

Dharwar Agency—This comprises only the small State of Savanur, the founder of the ruling family who are Muhammadans of Pathan origin was a jagir of Emperor Aurangzeb. At the close of the last Maratha War the Nawab of Savanur whose conduct had been exceptionally loyal was confirmed in his possession by the British Government. The State pays no tribute. The principal crop is cotton. The area is 70 square miles and population 17,910. The revenue is about one lakh. In present chief is Abdul Majid Khan Durjani Bahadur.

Political Agent J. A. G. Wale

Kaira Agency—This includes only the State of Cambay at the head of the Gulf of the same name. Cambay was formerly one of the chief ports of India and of the Arabian Sea. It is said to have been one of the richest towns in India at the beginning of the nineteenth century and it formed one of the chief centres of commerce in Western India. Factories were established there by the English and the Dutch. It was established a distinct State about 1,300 the founder of the present family of Chiefs being the last but one of the Muhammadan Governors of Gujarat. The present Nawab is His Highness Mirza Husain Yarwan Khan who is a descendant of the Rajmunsing family of Lera and was born on the 16th May 1912. His father the late Yarwan Jaffer Ali Khan died on 21st January 1915 leaving him a minor. In 1915 it was for under British Administration. The State pays a tribute of Rs 21,000 to the British Government. Wheat and cotton are the principal crops. There is a broad gauge line from Cambay to Pottol, connecting with

the B B & C I Railway at Anand. Cambay is a first class State having full jurisdiction. Its area is about six lakh. The area of the State is 950 square miles, population 72,656.

Political Agent J. Ghoal

Kathiwar Agency—Kathiwar is the peninsula or western portion of the Province of Gujarat. Its extreme length is about 20 miles and its greatest breadth about 185 miles. The area being 23,445 square miles. Of this total about 20,422 square miles with a population of 2,46,000 is the territory forming the Political Agency subordinate to the Government of Bombay established in 1822 having under its control nearly 300 separate States whose chiefs are divided amongst them. The greater portion of the peninsula, the Kathiwar Agency, is divided for administrative purposes into 10 prants or divisions—Jhalawar, Hathi, Sorath and Golohar—and the States have since 1863 been arranged in seven classes. Since 1822 political authority in Kathiwar has been vested in the Political Agent subordinate to the Government of Bombay. In 1902 the designation of the Political Agent and his A. Staffs were changed to those of Agent to the Governor and Political Agents at the prants. Before 1863 the prant for the criminal court of the Agent to the Governor established in 1831 to all the Darbars of the several States in the trial of heinous crimes. Interference with the judicial administration of the territory was diplomatic not material and the criminal jurisdiction of the first and second class chiefs alone was defined. In 1863 however the country underwent an important change. The jurisdiction of all the chiefs was classified and defined that of chiefs of the first and second classes was made plenary that of lesser chiefs was graded in a diminishing scale. The four Political Agents of the prants resident in the four divisions of Kathiwar now exercise residual jurisdiction with large civil and criminal powers. Each Political Agent of a prant has a deputy who resides at the headquarters of the prant or division—and exercises subordinate civil and criminal powers. These criminal cases are committed by the Joputis to the court of the Agent to the Governor to whom also civil and criminal appeals lie. The Agent to the Governor is aided in this work by an officer known as the Political Agent and Judicial Assistant who is usually a member of the Indian Civil Service. Appeals from his decision lie direct to the Governor of Bombay. In civil suits his deputy capacity. Two Deputy Agents also help the Agent.

Agent to the Governor in Kathiwar J. Baden.

Bhavnagar—This State lies at the head and west end of the Gulf of Cambay. The Gobel Rajputs, to which tribe the Chief of Bhavnagar belongs, are said to have settled in the country about the year 1260 under Dughal from whose three sons—Ranji, Barangi and Dabhi—are descended respectively the chiefs of Bhavnagar, Lathi and Pallana. An intimate connexion was formed between the Bombay Government and Bhavnagar in the eighteenth century when the chief of that State took pains to destroy the pirates which infested the neighbouring seas. The State was split up when Gujarat and Kathiwar were divided between the Peshwa and

the Gackwar but the various claims over Bhavnagar were consolidated in the hands of the British Government in 1807. The State pays an annual tribute of Rs. 1,28,000 to the British Government, Rs. 3,361-8-0 as Peshkash to Baroda, and Rs. 22,858 as Zoridia to Junagadh. H. H. Maharaja Raol Shri Bhavangji K.C.S.I. is the supreme and final authority in the State. The general administration is conducted under His Highness's directions by the Dewan (M. A. Tara Atmaram Devan) who is assisted by the Naib Dewan, the Personal Assistant and the Judicial Assistant. One noteworthy feature in the administration is the complete separation of judicial from executive functions and the decentralization of authority is another. The authority and powers of all the Heads of Departments have been clearly defined and each within his own sphere is independent of the others being directly responsible to the Dewan.

The chief products of the State are grain, cotton and salt. The chief manufactures are oil, copper and brass vessels and cloth. The Bhavnagar State Railway is 205 miles in length and the management of it undertakes also the working of the Dhrangadhra State Railway for a length of 21 miles. The capital of the State is the town and port of Bhavnagar which has a good safe harbour for shipping and carries on an extensive trade as one of the principal markets and harbours of export for cotton in Kathiawar. Bhavnagar supports 300 Imperial Service Lancers and 232 Infantry or Armed Police.

Dhrangadhra State is an upriver tract of land (intersected by small streams) which consists of hilly and rocky ground where stone is quarried. The chief of Dhrangadhra belongs to the Jhalia tribe originally a sub-division of the Mahvana family. This tribe is of great antiquity and is said to have entered Kathiawar from the north establishing itself first at Patari in the Ahmedabad District thence moving to Halvad and finally settling in its present seat. The greater part of the territory was probably annexed at one time by the Mahomedan rulers of Gujarat. Subsequently during the reign of the Emperor Aurangzeb (1658-1707) the subdivision of Halvad, then called Muhammadsagar was restored to the Jhalia family. The petty states of Lambdi Wadhwa Chuda Sayla and Than Lakhtia in Kathiawar are offshoots from Dhrangadhra and the house of Wadhwa claims to be descended from an elder branch of the same race. His Highness the Maharaja Shri Chhatrayamsinh is the ruling chief, who is the head of the Jhalia Rajput family. The State pays a tribute of Rs. 40,071 to the British Government and Rs. 4,006 to Junagadh State. The administration is conducted under the Maharaja's directions by the Dewan (Vandish S. Jhalia). The principal crops are cotton and grain. The capital town is Dhrangadhra a fortified town 75 miles west of Ahmedabad.

Gondal State—The Chief of Gondal is a Rajput of the Jadeja stock with the title of Thakur Sahib. The present Chief being Sir Bhagwat Singh K.C.I.E. The early founder of the State, Kumbhoji I, had a modest estate of 20 villages. Kumbhoji II the most powerful Chief of the House, widened the territories to

almost their present limits by conquest but it was left to the present ruler to develop his resources to the utmost, and in the words of Lord Reay Governor of Bombay, by its importance and advanced administration to get it recognised as a First Class State. The State pays a tribute of Rs. 1,10,721. The chief products are cotton and grain and the chief manufactures are cotton and woollen fabrics and gold embroidery. Gondal has always been pre-eminent amongst the States of its class for the vigour with which public works have been prosecuted and was one of the earliest pioneers of railway enterprise in Kathiawar having initiated the Dhasa Dhoraji line. It subsequently built other lines in partnership with other Native States in Kathiawar. The Capital is Gondal a fortified town on the line between Rajkot and Jetalsar.

Junagadh State—This State has an area of 3,234 square miles and is bounded on the north by the Baroda and Balar and on the west and south by the Arabian Sea. The river Saraswati famous in the sacred annals of the Hindus passes through the State. A densely wooded tract called the Gir is contained in the State and is well known as the last haunt in India of the lion. Until 1472, when it was conquered by Sultan Mahmud Begra of Ahmedabad Junagadh was a Rajput State ruled by Chiefs of the Chudasama tribe. During the reign of the Emperor Akbar it became a dependency of Delhi under the immediate authority of the Mughal Viceroy of Gujarat about 1730 when the representative of the Mughals had lost his authority in Gujarat. Sher Khan Babi a soldier of fortune expelled the Mughal Governor and established his own rule. The ruler of Junagadh first entered into engagements with the British Government in 1807. The Chief bears the title of Nawab the present Nawab being tenth in succession from the founder of the family. He is His Highness Muhabat Khan who was born in 1900 and succeeded in 1911. The agricultural products are cotton shipped in considerable quantities from Veraval to Bombay wheat and other grains. The coast line is well supplied with fair weather harbours. The State pays a tribute of Rs. 63,604 to the Gackwar of Baroda and the British Government but the Nawab receives contributions, called *zor tahi*, amounting to Rs. 92,421 from a number of chiefs in Kathiawar—a relic of the days of Mahomedan supremacy. The State maintains 100 Imperial Service Lancers. The Capital is Junagadh situated under the Girnar and Datar hills which is one of the most picturesque towns in India while in antiquity and historical interest it yields to none. The Upper fort or old citadel contains interesting Buddhist caves, and the whole of the ditch and neighbourhood is honeycombed with caves or their remains. There are a number of fine modern buildings in the town.

Administrator H. D. Rendall I.C.S.

Navanagar State, on the southern shore of the Gulf of Cutch has an area of 3,791 square miles. The Jam of Navanagar is a Jadeja Rajput by caste and belongs to the same family as the Rao of Cutch. The Jadejas originally entered Kathiawar from Cutch, and dispossessed the ancient family of Jehwas.

(probably a branch of Jata) then established at Ghumli. The town of Navanagar was founded in 1540. The present Jam Sahib is the well known cricketer H. H. Jam Sahib Shri Ranjitramji Vibhaji who was born in 1872 and succeeded in 1900. The principal products are grain and cotton shipped from the ports of the State. A small pearl fishery lies off the coast. The State pays a tribute of Rs. 120,000 per annum jointly to the British Government, the Gaekwar of Baroda and the Nawab of Junagadh. The State maintains a squadron of Imperial Service Lancers. The Capital is Navanagar (or Janunagar) a flourishing place, nearly 4 miles in circuit situated 1 mile east of the port of Bedi. Population 14,400. Revenue nearly Rs. 40 lakhs.

Administrator during the absence of His Highness at the front: Major Lethbridge.

Deputy: K. B. Mavani, Postonji.

Kolaba Agency—This Agency includes the State of Janjira in the Konkan, a country covered with spurs and hill ranges and much intersected by creeks and backwaters. The ruling family is said to be descended from an Abyssinian in the service of one of the Nizam Shahi Kings of Ahmadnagar at the end of the fifteenth century. The most noticeable point in its history is the successful resistance that it alone of all the states of Western India made against the determined attacks of the Marathas. The British on succeeding the Marathas as masters of the Konkan refrained from interfering in the internal administration of the State. The chief a Sunni Mohammedan by race a baid or Abyssinian with a title of Nawab. He has a small guaranteed succession according to Mohammedan law and pays no tribute. Till 1868 the State enjoyed singular independence there being no Political Agent, and no interference whatever in its internal affairs. About that year the internal administration of the chief especially in matters of police and criminal justice became flagrant those branches of administration were in consequence taken out of his hands and vested in a Political Agent. The present ruler is H. H. Nawab Shri Ali Akbar Khan C.I.E. who was born in 1862. The area of the State is 377 square miles and the population 101,120. The average revenue is

6 lakhs. The State maintains a military force of 228 and an Imperial Service detachment of 29. The capital is Janjira 44 miles south of Bombay Island. The State exercises full powers in Criminal Civil and Revenue matters of the State including Jafarabad, a p. idency of the Janjira State in Kathiawar. He is entitled to a dynastic salute of 11 guns.

Kolhapur Agency—Kolhapur is a State with an area of 3,217 square miles and population of 2,33,441. Subordinate to Kolhapur are nine feudatories of which the following five are important: Vishalgad, Darga, Kagal (senior), Kagal, and Uthalgad. The present ruling chief, Sir Shahu Chhatrapati Maharaja C.I.E. C.I.B. C.I.C. traces his descent from a younger son of Shivaji, founder of the Maratha power. The prevalence of piracy from the Kolhapur port of Malvan compelled the British Government to send expeditions against Kolhapur in 1680 and again in 1702, when the Raja agreed to give compensation for the losses which British merchants had sustained since 1678 and to permit the establishment of factories at Malvan and Kolhapur. Internal dissensions and wars with neighbouring States gradually weakened the power of Kolhapur. In 1812 a treaty was concluded with the British Government by which, in return for the cession of certain ports, the Kolhapur Raja was guaranteed against the attack of foreign powers, while on his part he engaged to abstain from hostilities with other States and to refer all disputes to the arbitration of the British Government. The principal articles of production are rice, jawar and sugar-cane and the manufactures are coarse cotton and woollen cloth, pottery and hardware. The State pays no tribute and supports a military force of 6,000. The feudatory estates are administered by their holders. Except in the case of two whose hold is nominal, Kolhapur proper is divided into six pithas or talukas and four mahals and is managed by the Maharaja who has full powers of life and death. The Southern Mahratta Railway passes through the State and is connected with Kolhapur City by a line which is the property of the State.

Resident and Senior Political Agent for Kolhapur and the Southern Mahratta Country—Lt Col F. W. Woodhouse C.I.E.

Southern Maratha Country States—Th

Agency consists of the following eight States—

Name of State	Area in square miles	Population.	Tribute to British Government	Average revenue
			Rs.	Rs.
Sangli	1,112	227,146	1,36,000	10,75,756
Miraj (Senior)	389	80,281	12,567	3,12,980
Miraj (Junior)	210	38,490	7,398	2,55,263
Kurundwad (Senior)	185	33,375		1,54,909
Kurundwad (Junior)	114	34,084	9,618	1,73,669
Jamkhadi	524	100,804	29,515	9,41,106
Mudhol	868	62,881	2,871	3,32,918
Hamdurg	169	38,610		1,50,729
Total	3,021	616,121	1,97,749	34,16,787

Mahli Kantha.—This group of States has a total area of 3,124 square miles and a population of 412,631. The revenue is about 14 lakhs. The Agency consists of the first class State of Idar and 62 small States. The Native State of Idar covers more than half the territory, eleven other States are of some importance and the remainder are estates belonging to Rajput or Koli chieftains, some the lawless feudatories of Lordships and still requiring the anxious supervision of the Political Officer. R. H. Major General Sir Parthab Singh, a Rajput of the Rathor Clan having been appointed agent of the State of Junapur resigned the post of Idar in June 1911 and was succeeded by his adopted son Daulat Singh. Many relatives of the Maharaja and feudatory chiefs whose ancestor helped to secure the country for the present dynasty now enjoy large estates on hereditary tenure and there are numerous petty chiefs or *bhums* who have held considerable estates from the time of the Rases of Idar or earlier and are under no obligation of service. The revenue of the State is shared by the Maharaja with these feudatory chiefs. The Maharaja receives Rs. 40,000 annually on account of Khilafat and other Raj Raks from its subordinate Sardar chieftaincy Talukas of the Mahli Kantha Agency and other and pay Rs. 10,000 is tribute to the Gaikwar of Baroda through the British Government. The subordinate Sardars of Idar known locally as *parvats* hold their estates on condition of military service. The quotas being fixed for a number of years at 1000 Rupees of Rs. 1000 but the military service has not been exacted and no military force is maintained presently.

Political Agent.—Lt Col J. R. B. Graham Carter.

Nasik Agency.—This consists of one State Surana, lying in the north west corner of the Nasik District. Surana is an area of 10 square miles and a population of 1,100. The ruling chief is Tristram Shankarra Deshmukh who is descended from a Marathi Pawar family. He rules the State subject to the orders of the Collector of Nasik. The revenue of the State is about Rs. 23,000.

Palanpur Agency.—This group of States in Gujarat comprises two first class States Palanpur and Radhanpur and a few minor States and petty talukas. Its total area is 1,699 square miles and the population is 310,000. The gross revenue is about 14 lakhs. The territory included in the Agency has like the more central part of Gujarat passed through historical times under the sway of the different Rajput dynasties of Anhilvada, the early Khilji and Tughlak Shahi dynasties of Delhi the Ahmedabad Sultans the Mughal Emperors, the Marhattas and lastly the British. The State from which the Agency takes its name is under the rule of R. H. Nawab Sher Mahomed Khan Agha who is entitled the Dewan of Palanpur. He is descended from the Lohani an Afghan tribe who appeared in Gujarat in the fourteenth century. The connection of the British Government with the State dates from 1819 in which year the chief was murdered by a body of nobles. Two high roads from Ahmedabad pass through

the State and a considerable trade in cotton cloth, grain, sugar and rice is carried on. The State maintains a military force of 600 and pays tribute of Rs. 18,000 to the Gaikwar of Baroda. The capital is Palanpur located at the junction of the B. & C. I. Railway. It is a very old settlement of which mention was made in the eighth century.

Political Agent.—Major N. S. Coghill.

Radhanpur is a State with an area of 1,150 square miles which is now held by a branch of the Babi family who since the reign of Humayun have always been prominent in the annals of Gujarat. The present chief is R. H. Jai Laluddin Khanji the Nawab of Radhanpur. He has powers to represent his own subjects even for capital offences without permission from the Political Agent. The State maintains a military force of 200. The principal products are cotton, wheat and grain. The capital is Radhanpur town a considerable trade centre for North Gujarat and Cutch.

Bewa Kantha Agency.—This Agency with an area of 4,908 square miles and a population of 600,000 comprises 61 States of which Rajpura is a first class State, 5 are second class, one is third class and the rest are either petty States or talukas. Among these petty States are Balana and Ranj in the north, Bhadarva and Umra in the west, Narukot in the south east and the groups of Mehwas. The 26 Sankheda Mehwas petty estates lie on the right bank of the Narbada while the 24 Parliu Mehwas petty estate including Dorka Anghad and Raika which together form the Dorka Mehwas are situated on the border of the Mahli

The following are the statistics of area and population for the principal States—

Taluka or Petha	Area in square miles	Population
Balsastur	180	40,563
Rajura	813	115,350
Chhoti Udaipur	87	103,639
Lunavada	388	75,998
Narukot (Jamblughoda)	140	8,495
Rajpura	1,517	181,558
South	394	59,350
Other Jurisdictional States (civil stations and Talukas)	639	100,126

Under the first Anhilvada dynasty (746-961) almost all the Bewa Kantha lands except Jampanpur were under the government of the Barmas that is Koli and Bhil chiefs. In the eleventh, twelfth and thirteenth centuries chiefs of Rajput or part Rajput blood, driven south and east by the pressure of Muhammadan invasions took the place of the Koli and Bhil leaders. The first of the present States to be established was the house of the Raja of Rajpura.

Political Agent.—J. P. Brander.

Rajppla.—This State lies to the south of the Narbada. It has an area of 1,517 square miles and largely consists of the Rajppla hills which form the watershed between the Narbada and Tapi rivers. The family of the Raja of Rajppla is H. H. Maharaja Shri Vijayasingh is said to derive its origin from a Kalput of the Gohel clan. The State pays an annual tribute of Rs. 50,000 to the Gaekwar of Baroda. Cotton is the most important crop in the State. In the south there are valuable teak forests. The capital is Nanded which is connected with Ankleswar by railway built by the State.

Satara Jagira.—Under this heading are grouped the following six States—

State	Area in sq. miles	Population	Revenue in lakhs
Aundh	401	68,992	3
Ilhalrao	337	52,298	2
Bhor	325	144,601	5
Akalkot	498	89,062	4
Jath	884	89,810	2
Daphlapur	96	8,833	20

These were formerly feudatory to the Raja of Satara. In 1849 five of them were placed under the Collector of Satara and Akalkot under the Collector of Sholapur. Subsequently the Jagir of Bhor was transferred to the Collector of Poona and Jath and Daphlapur to the Southern Mahratta country. The last two are now under the Collector of Rajapur. The ruling chiefs are as follows—

State	Ruling Chf. is	Tribute to British Government
Aundh	Bha. anay Shrinivasrao alias Baba Sahib Pant Pratididhi.	Rs.
Phaltan	Mudholirav Janray Nimbalkar	9,600
Bhor	H. N. Shankarrao Chimnaji Pant Sachiv	4,684
Akalkot	Fatishah Shihaji Itaje Bhonle alias Bapu Sahib	14,992
Jath	Laurav Amritrav alias Abu Samir Daphli	6,400
Daphlapur	Ratu Bal Sahib Daphli widow of Lam Bandirav Yankatray Chavan Daphli	

Savantwadi.—This State has an area of 928 square miles and population of 1,240. The average revenue is 1 lakh. It lies to the north of the Portuguese territory of Goa, the general aspect of the country being extremely picturesque. Fairly inscriptions taken the history of the State back to the sixth century. So late as the nineteenth century the ports on this coast swarmed with pirates and the country was very much disturbed. The present chief is Khim Savant alias Bapu Sahib Bhonsale. Rice is the principal crop of the State and it is rich in valuable teak. The sturdy Marathas of the State are in constant troupe for the Indian Army and supply much of the indigenous labour in the adjacent British district. The capital is Savant wadi also called Sunar Vadi or simply Vadi.

It has an area of 1,000 square miles and a population of 1,240 and revenue of 19 lakhs. The present chief is H. H. Mir Sir Imam Bux Khan Talpur. CIL belongs to a Baluch family called Talpur. Previous to the accession of this family on the fall of the Kalhora dynasty of Sind in 1780, the history of Khairpur belongs to the general history of Sind. In that year Mir Fateh Ali Khan Talpur established himself a Rana or ruler of Sind and subsequently his nephew Mir Sohrab Khan Talpur founded the Khairpur branch of the Talpur family. In 1843, the individuality of the Khairpur State as separate from the other Talpur Mirs in Sind was recognized by the British Government in a treaty under which the use of the river Indus and the roads of Sind were secured to the British. The chief products of the State are fuller earth, carbonate of soda, cotton wool and grain. The manufactures comprise cotton fabrics and various kinds of silvers and metal work. The railway from Hyderabad to Pohn runs through the whole length of the State. The rule of the Mirs is patriarchal but many changes have been made in recent years introducing greater regularity of procedure into the administration. The Wazir, an officer lent from British service, conducts the administration under the Mir. The State supports a military force of 504 including an Imperial Service Camel and baggage Corps which is 139 strong.

Sholapur Agency.—This contains the State of Akalkot which forms part of the tableland of the Deccan. It has an area of 498 square miles and a population of 89,062. In the beginning of the eighteenth century the Akalkot territory, which had formerly been part of the Muslim Kingdom of Ahmednagar, was granted by the Raja of Satara to a Maratha bardar the ancestor of the present chief subject to the supply of a contingent of horse. In 1849 after the annexation of Satara, the Akalkot Chief became a feudatory of the British Government.

The Sukkur Agency.—This includes Khairpur State, a great alluvial plain in Sind. It

Political Agent the Collector of Sukkur
C. S. Campbell

Surat Agency—This is a small group of three second class States under the superintendence of the Collector of Surat W F Hudson

State.	Ruling Chiefs	Area in sq. miles.	Population
Dharampur	Maharaja Shri Mahadevi Naravandevi	704	116,895
Banoda	Maharaja Shri Indrasinhji Pratapsinhji	215	44,594
Sachin	Nawab Nid Ibrahim Muhammad Yakut Khan Muba Sarai Daula Nasir Jung Bahadur	42	18,903

The joint revenue of these states is 14½ lakhs. Tribute is paid to the British Government of Rs. 9,154. There is also attached to this Agency a tract of country known as the Dangs which has an area of 999 square miles and a population of 29,331 and a revenue of Rs. 30,000. The country is divided into 14 Dangs or States of very unequal area each under the purely nominal rule of a Bhil Chief with the title of Raja Naik Pradhan or Pover.

Thana Agency—This includes the State of Jawhar in the Thana District on a plateau above the Konkan plain. It has an area of 310 square miles and a population of 53,489

and revenue of 2 lakhs. Up to 1294 the period of the first Mahomedan invasion of the Deccan Jawhar was held by a Varli not a Koli chief. The first Koli chief obtained his footing in Jawhar by a device similar to that of Dido when he asked for and received as much land as the hide of a bull would cover. The Koli chief cut a hide into stripes and thus enclosed the territory of the State. The present chief is Raja Kri-bhansah Patangshah who administers the State assisted by a Karbhari under the supervision of the Collector of Thana, M. M. Tharmaji who is Political Agent of the State.

UNDER THE GOVERNMENT OF BENGAL

Cooch Behar—This State is a low lying plain in North Bengal. It has an area of 1,300 square miles, a population of 5,93,052 and revenue of 27 lakhs. The ruling chief is H. H. Maharaja Indendra Narayan Bhup Bahadur who succeeded in 1913. His family is of Tibetan or Dravidian origin. He administers the State with the assistance of the State Council. Cooch Behar once formed part of the famous kingdom of Kamarupa. British connexion with it began in 1772 when the succession was disputed and the assistance of the East India Company invited. The chief products of the State are rice, jute and tobacco. It maintains a military force of 194. The capital is Cooch Behar which is reached by the Cooch Behar State Railway a branch from the Eastern Bengal State Railway system.

Hill Tippera—This State lies to the south of the district of Sylhet and consists largely of hills covered with bamboo jungles. It has an area of 4,986 square miles and a population of 229,813. The revenue from the State is about 10 lakhs and from the Zimindari in British territory a slightly smaller sum. The present Raja is Bharendra Kishore Deb Samar Manikya who is a Kshatriya by caste and comes of the Lunar race. The military

prestige of the Tippera Rajas dates back to the fifteenth century and a mythical account of the State takes the history to an even earlier date. Both as regards its constitution and its relations with the British Government the State differs alike from the large Native States of India and from those which are classed as tributary. Besides being the ruler of Hill Tippera the Raja also holds a large landed property called Chakla Kosiabad situated in the plain of the District of Tippera, Nalhati and Sylhet. His estate covers an area of 1,000 square miles and is held to form with the State an indivisible Raj. Disputes as to the right of succession have occurred on the occasion of almost every vacancy in the Raj producing in time a great disturbance and domestic war and exposing the inhabitants of the hills to a most disorder and attacks from the Kukus, who were always called in as auxiliaries by one or other of the contending parties. The principles which govern succession to the State have recently however been embodied in a sanad which was drawn up in 1904. The chief product of the State are rice and cotton, the traffic being carried chiefly by water. The administration is conducted by the Minister at Agartala assisted by the Dewan. Political Agent J. Barlett, I.C.S.

UNDER THE GOVERNMENT OF BIHAR AND ORISSA.

Under this Government there are the Chota Nagpur political State of Kharsawan and Seraikela, and the Orissa feudatory States 24 in number. The total area is 23,648 square miles and the total population 1,942,772. The revenue is about 54 lakhs. The inhabitants are hill men of Kolarian or Dravidian origin and their condition is still very primitive. The chief of Kharsawan belongs to a junior branch of the Forabat Raja's family. The State first came under the notice of the British in 1792 when in consequence of disturbances on the

frontier of the old Jungle Mahals the Thakur of Kharsawan and the Kunwar of Seraikela were compelled to enter into certain agreements relating to the treatment of fugitive rebels. The chief is bound when called upon to render service to the British Government, but he has never had to pay tribute. His present sanad was granted in 1899. He exercises all administrative powers executive and judicial subject to the control of the Deputy Commissioner of Singhbhum and the Commissioner of Chota Nagpur. The Bengal Nagpur Rail

way runs through a part of the State. The adjoining State of Seralkela is held by the older branch of the Porubhat Raja's family.

Orissa Feudatory States.—This group of 22 dependent territories is situated between the Mahanadi Delta and the Central Provinces and forms the mountainous background of Orissa. The names of the individual States are Athgarh Talcher, Ma urbhanj, Niguri, Keonjhar, Pal Lahara, Dhenkanal, Athmalik, Hindol, Narasinghpur, Baramba, Tigirra, Khanpara, Nayagarh, Ranpur, Dasapalla and Baud. To these there were added in 1905 the following States: Bamra, Rairakhol, Sonpur, Palma and Kulahandi from the Central Provinces, and Gangpur and Bonal from the Chota Nagpur States. The total population in 1911 was 798,038 with a revenue of about 45 lakhs. The Tributary States have no connected or authentic history. Comprising the western and hilly portion of the province of Orissa they were never brought under the central government but from the earliest times consisted of numerous petty principalities which were more or less independent of one another. They were first inhabited by aboriginal races who were divided into innumerable communal or tribal groups each under its own chief or headman. These carried on mercantile warfare with their neighbour on the one hand and with the wild beasts of the forests on the other. In course of time their hill retreats were penetrated by Aryan and venturers who gradually overthrew the tribal chiefs and established themselves in their place. Tradition relates how these daring enterprisers, most of whom were Rajputs in origin, came to Purī on a pilgrimage and remained behind to found kingdoms and dynasties. It was thus that Jai Singh became ruler of Mayurbhanj over 1300 years ago and was succeeded by his eldest son while his second son seized Kroughar. The chiefs of Band and Dasapalla are said to be descended from the same stock and a Rajput origin is also claimed by the Rajas of Athmalik, Narasinghpur, Pal Lahara, Talcher and Tigirra. Nayagarh, it is alleged, was founded by a Rajput from Rewah, and a son of the same family was the ancestor of the present house of Khanpara. On the other hand, the chiefs of a few States such as Athgarh, Baramba and Dhenkanal, owe their origin to favourites or distinguished servants of the ruling sovereigns of Orissa. The State of Ranpur is believed to be the most ancient the last of its chiefs, dying a period of over 3,600 years. It is noteworthy that this family is admittedly of Khond origin and furnishes the only known instance in which amid many vicissitudes the supremacy of the original settlers has remained intact. The States acknowledged the suzerainty of the paramount power and were under an implied obligation to render assistance in resisting invaders but in other respects neither the ancient kings of Oris nor their successors, the Mughals and Marathas ever interfered with their internal administration. All the States have annals of the dynasties that have ruled over them but they are made up in most part of legend and fiction and long genealogical tables of doubtful accuracy and contain very few features of general interest. The British conquest of Orissa from the Marathas, which took place in 1803, was immediately followed by the subjugation of ten of the Tributary States the chiefs of which were the first to enter into treaty engagements.

The staple crop in these States is rice. The forests in them were at one time among the best timber producing tracts in India, but until lately forest conservancy was practically unknown. The States have formed the subject of frequent legislation of a special character. The relations with the British Government are governed mainly by the sanads granted in similar terms to all the chiefs in 1894. They contain five clauses relating the rights, privileges, duties and obligations of the chiefs, providing for the settlement of boundary disputes and indicating the nature and extent of the control of the Political Agent who is also the Commissioner of the Oris Division.

Political Agent L. F. B. (olden) Ramsey

UNDER THE GOVERNMENT OF THE UNITED PROVINCES.

These States, Ranpur, Telai and Ichnare are included under the Government.—

State	Area Sq. Miles	Population	Revenue in lakhs
Ranpur	882	371,898	4
Telai (Garhwal)	4,200	299,863	6
Ichnare	998		

Ranpur in Rohilkhand is a level fertile tract of country. Its early history is that of Rohilkhand. The adopted son of a Rohilla who had distinguished himself in the Maratha wars obtained the title of Nawab and the grant of the greater part of Rohilkhand in 1790. Subsequently the State was divided amongst his sons and on the cession of Rohilkhand to the British Government in 1801 the family holding Ranpur were confirmed in their possessions. The Nawab at the time of the Mutiny received a grant of land for his unwavering

loyalty. The present Nawab is Colonel H. H. Mir Hamid Ali Khan Bahadur G.O.N. G.O.V.O. A.D.O. who was born in 1875 and succeeded in 1899. He is the sole surviving representative of the Rohilla power and is the premier chief in the United Provinces. Since 1889 a native official of the United Provinces called the Munster has been sent to the State. He presides over a Legislative Committee first formed in 1902. The principal crops are maize, wheat, rice and sugar cane. The most important industry is the weaving of cotton cloths. The Outh and Rohilkhand Railway crosses the State. Three squadrons of cavalry are maintained of which two 317 strong are Imperial Service Lancers. The local force includes about 1,900 infantry and 200 artillery. The capital is Ranpur on the left bank of the Kosi, 801 miles by rail from Calcutta. Income, 4½ lakhs. Area 892 square miles. Population 531,217.

Political Agent The Commissioner of Rohilkhand

Tehri State (or Tehri Garhwal)—This State lies entirely in the Himalayas and contains a tangled series of ridges and spurs radiating from a lofty series of peaks on the border of Tibet. The sources of the Ganges and the Jumna are in it. The early history of the State is that of Garhwal District, the two tracts having formerly been ruled by the same dynasty. Parguman Shah, the last Raja of the whole territory, was killed in battle fighting against the Gurkhas, but at the close of the Nepalese War in 1815 his son received from the British the present State of Tehri. During the Mutiny the latter rendered valuable assistance to Government. He died in 1859 without issue and was succeeded by his next relative Bhawanji Shah, and he subsequently received a sanad giving him the right of adoption. The present Raja Sir Kirti Shah Rani was installed in 1894. The principal product is rice grown on terraces on the hill-sides. The State forests are very valuable and there is considerable export of timber. The Raja has full powers within the State, executive authority being vested in an officer called the Wazir. A military force of 115 strong is maintained. The capital is Tehri, the summer capital being Pratapnagar 8,000 feet above the sea level.

Political Area: the Commissioner of Kumaon.

Benares—The founder of the ruling family of Benares was one Manu Ram, who entered the service of the Governor of Benares under the Nawab of Oudh in the early eighteenth century. His son Jivraj Singh conquered the neighbouring country and created a big State out of them on which he ruled till 1760.

Raja Chet Singh succeeded him, but was expelled by Warren Hastings in 1781. In 1794, owing to the maladministration of the estates which had accumulated under the Raja of Benares, an agreement was concluded by which the lands held by the Raja in his own right were separated from the rest of the province of which he was simply administrator. The direct control of the latter was assumed by the Government, and an annual income to one lakh of rupees was assured to the Raja, while the former constituted the Domains. Within the Domains the Raja had revenue powers similar to those of a Collector in a British District, which were delegated to certain of his own officials. There was thus constituted what for over a century was known as the Family Domains of the Maharaja of Benares. On the 1st of April 1911 these Domains became a State consisting of the parganas of Bhadohi (or Konrh) and Chakla (or Kera Mangraur) with the fort of Ramnagar. The Maharaja's powers are those of a ruling chief subject to certain conditions of which the most important are the maintenance of all rights acquired under laws in force prior to the transfer of the reservation to Government, of the control of the postal and telegraph systems of pargana, criminal jurisdiction within the State over servants of the British Government and European British subjects, and of a right of control in certain matters connected with justice. The present ruler is H. H. Maharaja Sir Prabhu Narayan Singh Bahadur GCSI, who was born in 1855 and succeeded to the Estates in 1883.

UNDER THE GOVERNMENT OF THE PUNJAB

Under this Government there are 34 states varying considerably in size and importance. Area, 86,532 square miles. Population (1911) 4,212,794. Revenue about 51,000,000.

The Punjab states may be grouped under three main classes. The hill States, 23 in number, lie among the Punjab Himalayas and are held by some of the most ancient Rajput families in all India. Along the western half of the southern border lies the Muhammadan state of Bahawalpur, the remaining States including the Sikh principalities of Patiala, Jind, Nabha, Kapurthala, Faridkot and Kalua, and the Muhammadan chiefships of Malerkotla, Patand, Loharu and Dujana lie east of Lahore, and with insignificant exceptions occupy the centre of the eastern plains of the province.

The list below gives details of the area, population, and revenue of the more important states—

Name	Area square miles	Population	Revenue Approx in lakhs
Bahawalpur	15,000	780,394	27
Chamba	3,216	134,811	7
Faridkot	642	136,374	6
Jind	1,250	271,728	15
Kapurthala	830	288,244	25
Malerkotla	167	71,144	4
Mandi	1,200	181,110	5
Nabha	928	248,882	15
Patiala	5,412	1,407,659	72
Sirmur (Nahan)	1,198	188,564	8

Bahawalpur—This State, which is about 300 miles in length and about 40 miles wide, is divided lengthwise into three broad strips. Of these the first is a part of the Great Indian Desert, the central tract is chiefly desert, not capable of cultivation identical with the Bar or Pat uplands of the Western Punjab, and the third a fertile alluvial tract in the river valley is called the Sind. The ruling family claims descent from the Abbasid Khalfs of Egypt. The tribe originally came from Sind and assumed independence during the dismemberment of the Durran empire. On the rise of Ranjit Singh the Nawab made several applications to the British Government for an engagement of protection. These however were declined although the Treaty of Lahore in 1800 whereby Ranjit Singh was confined to the right bank of the Sutlej in reality effected his object. The first treaty with Bahawalpur was negotiated in 1833 the year after the treaty with Ranjit Singh for regulating traffic on the Indus. It secured the independence of the Nawab within his own territories, and opened up the traffic on the Indus and Sutlej. During the first Afghan War the Nawab rendered assistance to the British and was rewarded by a grant of territory and life pension. On his death the succession was disputed and for a time the State was in the hands of the British. The present Nawab is H. H. Nawab Sadq Muhammad Khan who was born in 1904 and succeeded in 1907. During his minority the State is managed by a Council of Regency. The chief crops are wheat, rice and millet. The

Lahore Karachi branch of the North Western State Railway passes through the State. The State supports an Imperial Service Hilladar Camel Transport Corps consisting of 355 men and 1144 camels, in addition to other troops. The capital is Bahawalpur a walled town built in 1748.

Political Agent Major A C Elliott

Chamba—This State is enclosed on the west and north by Kashmir on the east and south by the British districts of Kangra and Gurdaspur and it is shut in on almost every side by lofty hill ranges. The whole country is mountainous and is a favourite resort of portmen. It possesses a remarkable series of copper plate inscriptions from which its chronicles have been completed.

Founded probably in the sixth century by Marut a Surajbahu Rajput who built Brahamapura, the modern Brahmapur. Chamba was extended by Meru Varma (640) and the town of Chamba built by Sahil Varma about 920. The State maintained its independence until the Moghal conquest of India.

Under the Moghals it became tributary to the empire, but its internal administration was not interfered with and it escaped almost unscathed from Sikh aggression. The State first came under British influence in 1846. The part west of the Ravi was at first handed over to Kashmir but subsequently the boundaries of the State were fixed as they now stand and it was declared independent of Kashmir. The present chief is H. H. Raja Sir Bhure Singh K.C.S.I. C.I.E. who was born in 1859 and succeeded in 1904. The principal crops are rice, maize and millets. There are some valuable forests which were partly sold to Government in 1904 for a term of 99 years but the management of them has now been retroceded to the Chamba Durbar. The mountain ranges are rich in minerals which are little worked. The principal road to Chamba town is from Lathkot, the terminus of the Amritsar Pathankot branch of the North Western Railway. The Raja is head of the judicial department and is assisted by the Wazir. Wazirats. Chamba town on the right bank of the Ravi contains a number of interesting temples of which that of Lakshmi Narayan dating possibly from the tenth century is the most famous.

Faridkot—The ruling family of this sandy level tract of land belongs to the Sidhu Bharu clan of the Jats and is descended from the same stock as the Phulkian houses. Their occupation of Faridkot and Kot Kapura dates from the time of Akbar though quarrels with the surrounding Sikh States and internal dissensions have greatly reduced the patrimony.

The present chief H. H. Raja Brij Indar Singh Bahadur was born in 1896 and succeeded in 1906. During his minority the administration is carried on by a council under the presidency of an Extra Assistant Commissioner. The State supports one company of Imperial Service Bappers.

Jind—The three Native States of Jind, Patiala and Nabha form collectively the Phul

khan States, the most important of the Clans. This area is the ancestral possession of the Phulkian houses. It lies mainly in the great natural tract called the Jangal (desert or forest) but stretches north east into that known as the Pawaah and south wards across the Chaggar into the Nardak, while its southernmost tract, round the ancient town of Jind claims to lie within the sacred limits of Kurukshetra. This vast tract is not, however the exclusive property of the States for in it lie several islands of British territory and the State of Maler Kotla enters the centre of its northern border. On the other hand the States hold many outlying villages surrounded by British territory.

The history of Jind as a separate State dates from 1763 when the confederated Sikhs captured Sirhind town and partitioned the whole Jind Province. The Maharaja of Jind, H. H. Maharaja Sir Ranbir Singh K.C.S.I. was born in 1879 and succeeded in 1887. He is descended from the ancestors of the Phulkian family. During the Sikh War and the Mutiny the Raja of Jind was of great service to the British and was rewarded with a grant of nearly 600 square miles of land. The principal crops are wheat, barley and gram. The only industries of importance are the manufactures of gold and silver ornaments, leather and woodwork and cotton cloth. The capital is Sangru which is connected by a State Railway with the North Western Railway. The administration of the State is divided between four departments under heads of departments which form together a State Council controlled by the Maharaja.

Kapurthala—This State consists of three detached pieces of territory in the great plain of the Doab. The ancestors of the chief of Kapurthala at one time held possessions both in the cis and trans Sutlej and also in the Bari Doab. In the latter lies the village of Ahlu, whence the family springs and from which it takes the name of Ahluwalia. Some of these States were confiscated after the First Sikh War and when the Jullundur Doab came under the dominion of the British Government in 1846 the estates north of the Sutlej were maintained in the independent possession of the Ahluwalia chieftain conditional on his paying a commutation in cash for the service engagements by which he had previously been bound to Ranjit Singh. The Bari Doab estates have been released to the head of the house in perpetuity the civil and police jurisdiction remaining in the hands of the British authorities. For good services during the Mutiny the Raja was rewarded with a grant of other States in Oudh in which however he exercised no ruling powers though in Oudh he is, to mark his superiority, addressed as Raja. The present chief is H. H. Maharaja Sir Jagatjit Singh Bahadur G.C.B. who was born in 1872 and succeeded in 1877. He was granted the title of Maharaja as an hereditary distinction in 1911. The chiefs of Kapurthala are Sikhs. Sardar Jassa Singh was always known as Jassa Kalal but the family claim descent from Rana Kapur, a semi mythical member of the Rajput house of Jaisalmer who is said to have left his home and founded Kapurthala 900 years ago. Only

a small proportion of the population however are Sikhs, the majority being Mahomedans. The chief crops are wheat, gram, maize, cotton and sugar-cane. The town of Sultanpur in this State is famous for hand-painted cloths. The main line of the North-Western Railway passes through part of the State and the Grand Trunk Road runs parallel to it. A branch railway from Jullundur City to Ferozpur passes through the State. Kapurthala maintains a battalion of Imperial Service Infantry and a small force of local troops. The capital is Kapurthala, which is said to have been founded in the eleventh century.

Agent to the Lieutenant Governor for Kapurthala the Commissioner of the Jullundur Division.

Maler Kotla.—This State consists of a level sandy plain bounded by the district of Ludhiana on the north and by Patiala territory elsewhere. The Nawabs of Maler Kotla are of Afghan descent and originally held positions of trust in the Sind province under the Moghul Emperors. As the Empire sank into decay during the eighteenth century the local chiefs gradually became independent. The result was constant feuds with the adjacent Sikh States. After the victory of Lawahri gained by the British over Sindha in 1803 and the subjugation and flight of Holkar in 1805 when the Nawab of Maler Kotla joined the British army the British Government succeeded to the power of the Mamthas in the districts between the Sutlej and the Jumna. The final treaty which affirmed the dependence of the State on the British Government was signed after the submission of Kanjit Singh in 1809. The present Nawab is H. H. Nawab Ahmad Ali Khan Bahadur who was born in 1881 and succeeded in 1908. The chief products are cotton, sugar and opium. The State supports one company of Imperial Service Sappers. The capital is Maler Kotla.

Mandi.—This is a mountainous State in the upper reaches of the Lhas. It has a history of considerable length as it once formed part of the Buket State. Its relations with the British were determined after the battle of Sobroon in 1846. The present minor chief H. H. Raj Jogindra Sen was installed in 1911. The administration is carried on by Mr. H. W. Emerson I.C.S. the Superintendent and Sardar Amar Singh. The principal crops are rice, maize, wheat and millet. About three-fifths of the State are occupied by forest and grazing lands. It is rich in minerals. The capital is Mandi founded in 1627 which contains several temples and other buildings of interest and is one of the chief marts for commerce with Ladakh and Yarkhand.

Nabha.—Nabha is one of the Phulkian States. It consists of two distinct parts, the main portion comprising 12 separate pieces of territory scattered among the other two Phulkian States of Patiala and Jind. The second portion forms the *summat* of Bawal in the extreme south-east of the Punjab. It became a separate State in 1703. After the victory of Sobroon the chief was deposed and about a quarter of his territory was confiscated. For his loyalty during the Mutiny the chief

was rewarded with territory which forms the present Bawal Nizamut. The present chief is H. H. Maharaja Ripudaman Singh Malwadar Bahadur who was born in 1883 and succeeded in 1911. He is assisted in the administration by a council of three members which also acts as a court of appeal. The State supports one battalion of Imperial Service Infantry. The State is traversed by the main line and by three branches of the North-Western Railway. The Rajputana Malwa Railway crosses Bawal. The chief crops are gram, wheat and pulses. The chief industries are manufactures of silver and gold ornaments and brass utensils.

Patiala.—This is the largest of the Phulkian States but its territory is scattered and interspersed by small estates and even single villages belonging to other villages and British districts. Its history as a separate State begins in 1762. During the Sikh War and the Mutiny the Maharaja was loyal and was substantially rewarded. The present chief H. H. Maharajadhiraja Sri Sir Bhupinder Singh Mahindar Bahadur G.C.M.G. was born in 1891 and succeeded in 1909. During his minority his administrative functions were exercised by a council of regency consisting of three members. The principal crops are gram, barley and wheat. Cotton and tobacco are also grown in parts of the State. It possesses valuable forests. The State is rich in antiquities especially at Pinjaur, Sunam and Sirhind. The North-Western Railway traverses the State. It contains an Imperial Service contingent of a regiment of cavalry and two battalions of infantry.

In 1900 it was decided by the Government of India to appoint a Political Agent for Patiala and the other two Phulkian States of Jind and Nabha were included in the Agency to which was afterwards added the Mahomedan State of Bahawalpur. The headquarters of the Agency are at Patiala.

Sirmur (Nahan).—This is a hilly State in the Himalayas under the Political control of the Commissioner of Ambala Division. Its history is said to date from the 11th century. In the eighteenth century the State was able to repulse the Gurkha invasion but in 1793 the Gurkhas were invited to aid in the suppression of an internal revolt in the State and they in turn had to be evicted by the British. In 1817 the Raja rendered valuable services to the British and during the second Afghan War he sent a contingent to the North-West Frontier. The present chief is H. H. Raja Amar Parkash Bahadur K.C.S.I., who was born in 1888 and succeeded in 1911. The main agricultural feature of the State is the recent development of the *hiarda*. This is a fertile level plain which produces wheat, gram, rice, maize and other crops. The State forests are valuable and there is an iron foundry at Nahan which was started in 1887 but, being unable to compete with the imported iron, is now used for the manufacture of sugar-cane crushing mills. The State supports an Imperial Service Corps of Sappers and Miners which served in the Tirah Expedition of 1897 and is at present on active service in the European War.

UNDER THE GOVERNMENT OF BURMA.

Under this Government there are four Shan States, two in the Mandalay Division (Hkamti Long and Mong Mit) and two in the Saguing Division (Hsawngshup and Singkaling Hkamti) the area of which is 7,374 square miles and the population about 67,061 consisting chiefly of Buddhists. There are in addition 48 petty States, 5 in the Northern Shan States 43 in the Southern Shan States with an area of 58,431 square miles and a population of 1,158,498 consisting of Buddhists and Animists.

The Shan States—though a portion of British India do not form part of Burma proper and are not comprised in the regularly administered area of the Province. They lie for the most part to the east of Upper Burma. They owed allegiance to the Burmese Government but were administered by their own rulers (Sawbwas) and the British Government has continued to a certain extent the semi-independence which it found existing in 1885. As at present defined the Shan States are divided into—

1. States under the supervision of the Superintendent Northern Shan States, whose headquarters are at Lashio, a total of 14,294 square miles and population 280,000.
2. State under the supervision of the Superintendent and Political Officer Southern Shan States, whose headquarters are at Lashio, a total of 40,434 square miles and population 900,000.

There are five States in the Northern and 38 in the Southern Shan States. There are in addition two Shan States under the supervision of the Commissioner of the Mandalay Division, namely Hkamti Long, in the unadministered territory to the north of the Myittha District and Mong Mit lying north-east of the Ruby Mines District. In the north-west of the Upper Chindwin District towards Manipur there are two small Shan States, Hsawngshup and Singkaling Hkamti, whose administration is supervised by the Commissioner of the Saguing Division.

The Northern Shan States are North Hsawng in the north, South Hsawng near the Salween, the east Manglon in the south, and Hsawng in the south-west and Lashio in the north-west. The Wa States east of the Salween

can hardly be said to be under British control. In ordinary matters the States are administered by their Sawbwas who are assisted by amats or ministers. In various departments the Superintendent exercises general control over the jurisdiction of justice and is vested with wide revisionary powers. In revenue matters the Sawbwas administer their States in accordance with local customs which have been but little modified. Of prime importance in the economy of the country is the Mandalay Lashio railway, 180 miles in length of which 128 miles lie within the Northern Shan States. The line is a single track and was constructed in the face of considerable engineering difficulties of which not the least notable was the Gokteik gorge now spanned by a viaduct. It had been proposed to continue the railway about 30 miles farther east to the Kunlong where it crosses over the Salween and eventually to penetrate into Yunnan, but this extension is for the present in abeyance.

The most important of the Southern Shan States are Kungtung and Lawngshwe. Under the supervision of the Superintendent and Political Officer and his Assistants the chiefs—known as Sawbwas Myozas and Ngazunhs—control their own States exercising revenue, civil and criminal jurisdiction therein. There are in all 9 Sawbwas, 18 Myozas and 11 Ngazunhs.

Karen—This district consists of five States with a total area of approximately 4,200 square miles and a population of about 64,000 lying on the frontier south of the Shan State. The largest State is Kantarawadi with an area of 3,000 square miles a population of nearly 40,000 and a gross revenue of about 1½ lakhs of rupees. More than half of the inhabitants belong to the Red Karens a people low in the scale of civilisation. An Assistant Political Officer is posted at Lolkaw as Agent of the British Government and a certain amount of control is exercised through him over the chiefs. The principal wealth of the country is its timber and the considerable deer population is largely supported by the timber trade which however has declined recently in the last few years. The Karens themselves are distinguished as hunters.

UNDER THE GOVERNMENT OF ASSAM

The only State of importance under the Chief Commissioner of Assam is **Manipur** which has an area of 8,458 square miles and a population of 346,222, of which about 60 per cent are Hindus and 36 per cent animistic forest tribes. Manipur consists of a great tract of hilly country and a valley about 30 miles long 20 miles wide which is shut in on every side. The State adopted Hinduism in the early eighteenth century when it came under a Naga Raja who subsequently made several incursions into Burma. On the Burmese retreating Manipur negotiated a treaty of alliance with the British in 1782. The Burmese again invaded Manipur during the first Burmese War and on the conclusion of peace, in 1826, Manipur was declared independent. In

chief event in its subsequent history was the intervention of the British in 1891 to establish the claim of Kula Chandra Singh as Maharaja, followed by the treacherous murder of the Chief Commissioner Mr. Quinton and the officers with him and the withdrawal of the escort which accompanied him. From 1891 to 1908 the State was administered by a Political Agent and Superintendent of the State during the minority of H. H. Raja Chura Chand Singh. The Raja was invested with ruling powers in 1908. The administration of the State is now conducted by the Durbar consisting of the Raja as President a vice-president, a member of the Indian Civil Service whose services are lent to the State three ordinary and three additional members who are all Manipuris.

The staple crop of the country is rice. Forests of great variety cover the whole of the hill ranges.

Khasi and Jaintia Hills.—These petty chieftships, 25 in number with a total area of about 8,900 square miles and a population of 125,000 are included under the Government of Assam. Most of the States have treaties or engagements with the British Government. The largest of them is Khyrim, the smallest is Nonglewal which has a population of 169. Most of them are ruled by a chief or Siom. The Siomship usually remains in one family but the succession was originally controlled

by a small electoral body constituted from the heads of certain priestly clans. Of recent years there has been a tendency to broaden the elective basis and the constitution of a Khasi State has always been of a very democratic character. A Siom exercising but little control over his people. Among many of the north-east frontier tribes there is little security of life and property and the people are compelled to live in large villages on sites selected for their defensive capabilities. The Khasis seem, however, to have been less distracted by internal warfare and the villages as a rule are small.

UNDER THE GOVERNMENT OF CENTRAL PROVINCES

The Central Provinces include fifteen feudatory States subordinate to the administration with an area of 81,174 square miles and a population of 2,117,002. One of the States, Makra lies within Hoshangabad District, the remainder are situated in the Chhattisgarh Division to the different Districts of which they were formerly attached. Their relations with Government are controlled by a Political Agent. The States vary greatly in size and importance, Bakhti the smallest, having an area of 1.8 square miles and Bastar the largest an area of 13,062 square miles. They are administered by hereditary chiefs, who hold on conditions of loyalty and good government set forth in patents and acknowledgments of fealty but are nominally free from direct interference save in the case of sentences of death which require the Chief Commissioner's confirmation. But as a fact the Government has exercised a very large amount of control owing mainly to the frequency with which the States have been taken under direct management because of either the minority or the misconduct of the chief.

The States pay a tribute to Government which amounts in the aggregate to about 2½ lakhs.

Statistics relating to the chief States are contained in the following table—

State.	Area	Population 1911	Revenue (approximate) 1911 in Lakhs
	Sq. Miles		Rs.
Bastar	13,062	43,310	1
Jashpur	1,964	1,44,408	8
Kanker	1,426	1,27,014	3
Khairagarh	911	1,11,471	1
Nandgaon	871	1,87,962	4
Raisagarh	1,484	2,18,960	2
Surguja	6,055	2,48,703	2
Eight States	5,377	4,11,824	6
Total	81,174	2,117,002	-

Bastar.—This State, which lies to the south-east corner of the Province is the most important of the group. It has an area of 13,062 square miles and a population of 43,310. The family of the Raja is very ancient and is stated to belong to the Rajputs of the Lunar race. Up to the time of the Marathas, Bastar occupied an almost independent position but

a tribute was imposed on it by the Nagpur government in the eighteenth century. At this period the constant feuds between Bastar and the neighbouring State of Jeypore in Madras kept the country for many years in a state of anarchy. The chief object of contention was the Kotapad chief which had originally belonged to Bastar but had been ceded in return for a stipend to Jeypore to one of the Bastar chieftains during some family dissensions. The Central Province Administration finally made the cede to Jeypore in 1883 on condition of payment of tribute of Rs. 9,000 two-thirds of which sum was remitted from the amount payable by Bastar. By virtue of this arrangement the tribute of Bastar was until recently reduced to a nominal amount. The cultivation of the State is extremely sparse. Rice is the most important crop. The State is ruled by the hereditary Chief. The Dewan of the State is an extra Assistant Conservator of Forests who has three assistants under him. After a recent period of disturbance the State was returned to complete tranquillity and precautions are being taken to remove all causes of unrest by better supervision over the minor State officials and a very considerate police. The chief town is Jagdalpur on the Indravati River.

Surguja.—(Until 1905) this was included in Chota Nagpur State of Bengal. The most important feature is the Manipal a magnificent tableland forming the southern barrier of the State. The early history of Surguja is obscure but according to a local tradition in Palamanu the present ruling family is said to be descended from a Kakati Raja of Palamanu. In 1708 a Maratha army overran the State, and compelled its chief to acknowledge himself a tributary of the Blomla Raja. At the end of the eighteenth century in consequence of the chief having aided a rebellion in Palamanu against the British an expedition entered Surguja and though order was temporarily restored, dispute again broke out between the chief and his relations, necessitating British interference. Until 1818 the State continued to be the scene of constant lawlessness but in that year it was ceded to the British Government under the provisional agreement concluded with Mudhoji Bhonsla of Benar and order was soon established. The principal crops are rice and other cereals. The population is mainly aboriginal, the wild Korwa tribe being a perpetual source of trouble. A band of them committed several murders and robberies in 1910.

Native States' Tribute.

Many of the States pay tribute varying in amount according to the circumstances of each case to the British Government. The tribute is frequently due to exchange of territory or settlement of claims between the Governments but is chiefly in lieu of former obligations to supply or maintain troops. The actual annual receipts in the form of tribute and contributions from Native States are summarised in the following table. The relations of the States to one another in respect of tributes are complicated and it would serve no useful purpose to enter upon the question. It may however be mentioned that a large number of the States of Kathiawar and Gujarat pay tribute of some kind to Baroda and that Gwalior claims tribute from some of the smaller States of Central India.

STATES PAYING TRIBUTE DIRECTLY TO THE GOVERNMENT OF INDIA

Tribute from Jaipur		£	
Kotah		26 66½	
Udaipur		1 048	
Jodhpur		13 9	
Bundi		8 ½	
Bharatpur		4 ½	
Other States		15 170	
Contribution of Jodhpur towards cost of Imperial Irregular Force		7 86½	81 57
of Kotah towards cost of Desh Irregular Force		13 3	
of Phopal towards cost of Imperial Levy		10 ½	
of Jaipur towards cost of United Malwa Contingent		19 71	
Contributions towards cost of Malwa Bhil Corps		5 816	
Fees on succession			57 279
			3 437
<i>Central Provinces and Bihar</i>			
Tribute from various States			142 290
<i>Burma</i>			
Tributes from Shan States		22 893	15 696
other States		33	
<i>Eastern Bengal and Assam</i>			28 927
Tribute from Manipur		3 333	
Ramu		13	
			3 347
<i>Bengal</i>			
Tribute from various States			3 483
<i>United Provinces</i>			
Tribute from Benares		12 148	
Awadh (Lahauri)		8 753	20 882
<i>Punjab</i>			
Tribute from Mandi		6 567	
other States		3 086	
Fees on succession		103	
			9 886
<i>Madras</i>			
Tribute from Tirunelveli		52 207	
Tribute and subsidy from Mysore		230 533	
Cochin		15 339	
Tirunelveli		884	
			299 762
<i>Bombay</i>			
Tribute from Kathiawar		31 129	
various petty States		8 ½	
Contribution from Baroda State		2 068	
Jagadpur Southern Maharashtra Country		5 85	
Subsidy from Cutch		5 484	
Fees on succession		3 457	
			70 727
Grand Total			595 000

It was announced at the Coronation Durbar of 1911 that there would in future be no Nisnams payments on successions. The details given above are for 1911-12. In 1910 the tribute amounted to £ 607 100.

Foreign Possessions in India.

Portugal and France both hold small territorial possessions in the Indian Peninsula.

The Portuguese possessions in India consist of the province of Goa situated within the limits of the Bombay Presidency on the Arabian Sea coast, the small territory of Daman on the Gujarat coast at the entrance to the Gulf of Cambay, and the little island of Diu lying off the southern extremity of the Kathiawar Peninsula.

GOA

Goa forms a compact block of territory surrounded by British districts. Savantwadi State lies to the north of it, the Arabian Sea on the west and North Kanara on the south and the eastern boundary is the range of the Western Ghats which separates it from the British districts of Belgaum and North Kanara. The extreme length from north to south is 62 miles and the greatest breadth from east to west 40 miles. The territory has a total area of 1,301 square miles and comprises the island of Goa acquired by the Portuguese in 1510, the division of Velhas Conquistas, or old Conquests, comprising the neighbouring districts of Barder and Salsette acquired in 1543 and the Nova Conquistas or New Conquests comprising the districts of Pernem, Bicholim, or Batagrum, Sutan, Ponda, or Antuz, Zambeolim, or Pancherim, and Cuncunha, or Advoa, acquired in the latter half of the 18th century. The small island of Anjidiv situated opposite the port of Karwar in the British district of North Kanara forms administratively a portion of the province of Goa. This was acquired in 1565. The whole country is built especially the western portion, the predominant physical feature being the Western Ghats which besides bounding the country along the north-east and south-east jut out westward and spread across the country in a succession of spurs and ridges. There are several conspicuous isolated peaks of which the highest, Suisagar, is 1,827 feet high.

The country is intersected by numerous rivers running westward from the Ghats and the principal eight which are all navigable are in order of some importance: Goa possesses a fine harbour formed by the promontories of Barder and Salsette. Half way between these extremities lies the cabo or cape which forms the extremity of the island of Goa. This divides the whole bay into two anchorages known as Aguada and Marmagao. Both are capable of accommodating the largest shipping from September to May but Aguada is virtually closed during the south west monsoon owing to the high winds and sea and to the formation of sand bars across the estuary of the Mandavir river which opens into Aguada. Marmagao is accessible at all times and is therefore the harbour of commercial importance. It is the terminus of the railway running to the coast from the inland British system of lines, a breakwater and port have been built there and the trade is considerable being chiefly transit trade from British territory.

The People.

The total population in the whole Goa territory was 675,618 at the census of 1900. This

gives a density of 343 persons to the square mile and the population showed an increase of 6 per cent since the census ten years previously. In the Velhas Conquistas 91 per cent of the population is Christian. In the Nova Conquistas Christians and Hindus are almost equally numerous. The Moslems in the territory are numbered in a few thousands. The Christians still very largely adhere to caste distinction claiming to be Brahmans, Chardos and low castes which do not intermarry. The Hindus are largely Marathas and do not differ from those of the adjacent Konkani districts of Bombay. All classes of the people with the exception of Europeans use the Konkani dialect of Marathi with some admixture of Portuguese words. The official language is Portuguese which is commonly spoken in the capital and the principal towns as well as by all educated people. Nearly all the Christians profess the Roman Catholic religion and are spiritually subject to an archbishop who has the titles of Primate of the East and Patriarch of the East Indies and exercises ecclesiastical jurisdiction also over a great portion of British India. (The Christians of Daman and Diu are subject to a Bishop who bears the titles of Bishop of Daman and Archbishop of Cranganore.) There are numerous churches in Goa mostly built by the Jesuits and Franciscans prior to the extinction of the religious order in Portuguese territory. The churches are in charge of secular priests. Hindus and Mahomedans now enjoy perfect freedom in religious matters and have their own places of worship. In the early days of Portuguese rule the worship of Hindu gods in public and the observance of Hindu usages were strictly forbidden and rigorously suppressed.

The Country

One third of the entire territory of Goa is stated to be under cultivation. A regular land survey was only recently made. The fertility of the soil varies considerably according to quality of situation and water supply. The Velhas Conquistas are as a rule better cultivated than the Nova Conquistas. In both these divisions a holding of fifteen or sixteen acres would be considered a good sized farm and the majority of holdings are of smaller extent. The staple produce of the country is rice of which there are two good harvests, but the quantity produced is barely sufficient to meet the needs of the population for two-thirds of the year. Next to rice, the culture of coconut palms is deemed most important from the variety of uses to which the products are applied. Hills, places and inferior soils are set apart for the cultivation of cereals and several kinds of fruit and vegetables are cultivated to an important extent. The condition of the agricultural classes in the Velhas Conquistas has improved during recent years, owing to the general rise in the prices of all classes of agricultural produce and partly to the current of emigration to British territory. The people in the Nova Conquistas have long been reported as reduced to great want through the oppression of the landowners. State forests are found in the Nova Con-

quintas. They cover an area of 116 square miles and are under conservation and yield some profit to the administration. Iron is found in parts of the territory but has not been seriously worked. Mangrove also exists and was worked to an important extent a few years ago.

Commerce

In the days of its glory Goa was the chief entrepot of commerce between East and West and was specially famous for its trade in horses with the Persian Gulf. It lost its commercial importance with the downfall of the Portuguese empire and its trade is now insignificant. Few manufacturing industries of any moment exist and most manufactured articles in the city are imported. Exports chiefly consist of coconuts, betel nuts, mangoes and other fruits and raw produce. A line of railway connects Marmagao with the Madras and Southern Mahratta Railway. It begins from Marmagao, a Castle Rock above the Ghata where it joins the British system is 31 miles of which 4½ are in Portuguese territory. The railway is under the management of the Madras and Southern Mahratta Railway Administration and the bulk of the trade of Marmagao port is what it brings down from and takes to the interior. The telegraphs in Goa territory are worked as part of the system of British India and are maintained jointly by the British and Portuguese Governments. The Goa territory was formerly subject to devastating famines and the people now suffer heavy losses in times of drought. They are then supplied though at great cost with rice from British territory.

The Capital

Nova Goa, the present capital of Portuguese India, comprehends Panjim and Bafolar as well as the old city of Goa and is six miles in extent. Old Goa is some five miles distant from the new city. Panjim occupies a narrow strip of land leading up to the Cabo da cape dividing the Aguada bay from that of Marmagao, and mainly slopes down to the edge of the Aguada. It was selected as the residence of the Portuguese Viceroy in 1759 and in 1843 it was raised to its present rank as the capital of Portuguese India. The appearance of the city with its row of public buildings and elegant private residences as seen from the water is very picturesque and this impression is not belied by a closer inspection of its neat and spacious roads bordered by decent tidy houses. The most imposing public structures are the barracks, an immense quadrangular building the eastern wing of which accommodates the Livramento Public Library and the Government Press. Other noticeable buildings are the Cathedral and various churches the viceregal palace the High Court and so on. The square in the lower part of the town is adorned with a life-sized statue of Albuquerque standing under a canopy.

History

Goa was captured for the Portuguese by Alfonso de Albuquerque in 1510. Albuquerque promptly fortified the place and established Portuguese rule on a firm basis. From this time Goa rapidly rose in importance and became the metropolis of Portuguese power in the East. There was constant fighting with

the armies of the Bijapur kingdom but the Portuguese held their own and gained the surrounding territory now known as the Velhas Conquistas.

The subsequent history of the town is one of luxury, ostentation and decay. Goa reached its summit of prosperity at the end of the sixteenth century. The accounts of travellers show that the Goa of those days presented a scene of military, ecclesiastical and commercial magnificence which has had no parallel in the British capitals of India. But the Portuguese based their dominion in India on conquest by the sword and they laboured to consolidate it by a centralizing organisation which throws the unimpaired efforts of every other European power in India into the shade. Old Goa, a the ruins of the old capital are called to-day has a hundred churches many of them of magnificent proportions and the Inquisition was a power in the land. The result shows how rotten was the base and how feeble on its feet the superstructure reared upon it.

After the genius of Albuquerque and the energies of the early viceroys had spent themselves, the armies constituted a vast idle population in the capital. The work of conquest was over and it left behind it a gay and wealthy city of conquerors who had nothing to do.

Modern Times

The Portuguese were unable to hold their own against the native banditti. There was frequently recurring fighting and in 1741 the Marathas invaded the neighbourhood of Goa and threatened the city itself. An army of 12,000 men arrived from Portugal at the critical moment. The invaders were beaten off and the Novas Conquistas were added to the Portuguese possessions. In 1843 the shelter given by Goa to fugitives from justice in British territory threatened to bring about a rupture with the British Government at Bombay. In 1862 the Ruins of Satad in the Novas Conquistas revolted. In 1871 the native army in Goa mutinied and the king's own brother came from Lisbon to deal with the trouble and having done so disbanded the native army which has never been reconstituted. But another outbreak among the troops took place in 1890 and the flames joining them the trouble was again not quelled until the arrival of another special expedition from Lisbon. The Rampa again broke out in 1901 and again in 1912 troops being again imported to deal with the last outbreak which was only reported concluded in the summer of 1913.

Administration

Goa is regarded as an integral portion of the Portuguese Empire and with Damão and Diu forms for administrative purposes one province subject to a Governor-General who is appointed directly by the Lisbon Government and holds office for five years. Besides his civil functions he is invested with supreme military authority in the province.

The Governor-General is aided in his administration by a Council composed of a Chief Secretary, the Archbishop of Goa, or in his absence, the chief ecclesiastical authority exercising his functions, the Judges of the

High Court, the two highest military officers in Goa, the Attorney General the Inspector da Fazenda, the Health Officer and the President of the Municipal Chamber or Corporation of the capital (Câmara Municipal das Ilhas) which is the oldest Municipal body in the East. As a rule all the members give their opinions and vote in every matter on which they are consulted by the Governor General. There are five other juntas or councils called the Junta Geral da Província (general council of the province) the Conselho da Província (the council of the province) the Conselho Technico das Obras publicas the Conselho

Inspector de Instrucao publica and the Conselho da Agricultura. The first of these is composed of the Chief Secretary the Archbishop or his substitute the Attorney General the Inspector da Fazenda the Inspector of Public Work the Health Officer a Professor of the Medical Surgical College, a Professor of the Lyceum or educational College a Professor of the Normal School and a representative from each of the Municipal Corporations of the province.

In addition to this machinery of administration there are subordinate agencies for the local government of every district.

DAMAN

The settlement of Damam lies at the entrance to the Gulf of Camba about 180 miles north of Bombay. It is composed of two portions namely Damam proper lying on the coast and the detached pargana of Nagar Havli separated from it by a narrow strip of British territory and bordered by the B. B. & C. I. Railway. Damam proper contains an area of 22 square miles and 28 villages and has a population (1900) of 17,391. Nagar Havli has an area of 80 square miles and a population (1900) of 14,280. The town of Damam was sacked by the Portuguese in 1511 rebuilt by the natives and retaken by the Portuguese in 1558 when they made it one of their permanent establishments in India. They converted the mosque into a church and have since built eight other places of worship. Of the total population the number of Christians is 1,563. The number of houses is 8,971 according to the same census. The native Christians adopt the European costume some of the women dressing themselves after the present European fashion and others following the old style of petticoat and maundi once prevalent in Spain and Portugal.

The soil of the settlement is moist and fertile, especially in the pargana of Nagar Havli.

but despite the ease of cultivation only one-twentieth part of the territory is under tillage. The principal crops are rice wheat the inferior kinds of sugarcane and tobacco. The settlement contains no minerals. There are stately forests in Nagar Havli and about two-thirds of them consist of teak but the forests are not cultivated and the extent of land covered by each kind of timber has not been determined. Before the decline of Portuguese power in the East Damam carried on an extensive commerce, especially with the coast of Africa. In those days it was noted for its dyeing and weaving.

The territory forms for administrative purposes a single district and has a Municipal Charter and Corporation. It is ruled by a Governor invested with both civil and military functions subordinate to the Governor-General of Goa. The judicial department is administered by a judge with an establishment composed of a delegate of the Attorney General and two clerks. In Nagar Havli the greater part of the soil is the property of the Government from whom the cultivators hold their tenures direct. A tax is levied on all lands, whether alienated or the property of the State. The chief source of revenue are land tax, forest, excise and customs duties.

DIU

Diu is an island lying off the southern extremity of the Kathiawar Peninsula from which it is separated by a narrow channel through a considerable swamp. It has a small but excellent harbour where vessels can safely ride at anchor in two fathoms of water and owing to the great advantage which its position offers for trade with Arabia and the Persian Gulf the Portuguese were fixed at an early period with a desire to obtain possession of it. Thus they gained first by treaty with the Sultan of Gujarat and then by force of

arms. Diu became opulent and famous for its commerce. It has now dwindled into insignificance. The extreme length of the island is about seven miles and its breadth, from north to south two miles. The area is 20 square miles. The population of the town of Diu from which the island takes its name is said to have been 30,000 in the days of its commercial prosperity. The total population of the island according to the census of 1900 is 14,014 of whom 543 were Christians.

FRENCH POSSESSIONS

The French possessions in India comprise five Settlements with certain dependent houses or plots. They aggregate 206 square miles and had a total population in 1912 of 26,486. The first French expedition into Indian waters with a view to open up commercial relations was attempted in 1604. It was undertaken by private merchants at Rouen but it failed as also did several similar attempts which followed. In 1642 Cardinal Richelieu founded the first Compagnie du Orient but its efforts met with no success. Colbert reconstituted the Company on a larger basis in 1664, granting

exemption from taxes and a monopoly of the Indian trade for fifty years. After having twice attempted without success to establish itself in Madagascar Colbert's Company again took up the idea of direct trade with India and its President Caron founded in 1668 the Comptoir or agency at Surat. But on finding that city unsuited for a head establishment he seized the harbour of Trinquetaille in Ceylon from the Dutch. The Dutch, however speedily retook Trincomalee, and Caron passing over to the Coromandel coast in 1673 seized St. Thome a Portuguese town adjoining Madras.

which had for twelve years been in the possession of Holland. He was, however, compelled to restore it to the Dutch in 1674.

The ruin of the Company seemed impending when one of its agents the celebrated François Martin suddenly restored it. Rallying under him a band of sixty Frenchmen saved out of the wreck of the settlements at Trincanalee and St. Thomas he took up his abode at Pondicherry then a small village which he purchased in 1683 from the Raja of Gingee. He built fortifications and a trade began to spring up but he was unable to hold the town against the Dutch who wrested it from him in 1693 and held it until it was restored to the French by the Peace of Ryswick in 1697. Pondicherry became in this year and has ever since remained the most important of the French settlements in India. Its foundation was contemporaneous with that of Calcutta. Like Calcutta its site was purchased by a European Company from a native prince and what Job Charnock was to Calcutta François Martin proved to Pondicherry. On its restoration to the French by the Peace of Ryswick in 1697 Martin was appointed Governor and under his able management Pondicherry became an entrepot of trade. Chandernagar in Lower Bengal had been acquired by the French Company in 1685 by grant from the Delhi Emperor. Mahé on the Malabar Coast was obtained in 1726 under the government of M. Lenoir. Karikal on the Coromandel Coast under that of M. Dumas in 1730. Yanam, on the coast of the Northern Circars, was taken possession of in 1750 and formally ceded to the French two years later.

Administration

The military command and administration in chief of the French possessions in India are vested in a Governor whose residence is at Pondicherry. The office is at present held by Monsieur A. Martineau. He is assisted by a Military General and by several Chiefs of Service in the different administrative departments and by a Chief Judicial Officer. In 1871 local council and a common general were established the members being chosen by a sort of universal suffrage with the French electors. In 1871 an Municipal or Communal Council was created in 1877. M. de Pondicherry is composed of Modhuruth, Ougaret, Villoury, Villoury and Chaurand, and the Council for the establishment of Pondicherry. Various Naval and Commercial Timoriar (i.e. de Alder) Officers for the establishment of Karikal and also Chandernagar. Mahé and Yanam. On municipal board natives are entitled to a proportion of the seats. Civil and criminal courts courts of first instance and a court of appeal compose the judicial machinery. The army and establishments

connected with the Governor and his staff at Pondicherry and those of the local governors or administrators at Chandernagar, Yanam, Mahé and Karikal, together with other head quarters, charges necessarily engross a large proportion of the revenue. All the state and funds of an independent Government, with four dependent ones have to be maintained. This is effected by rigid economy and the prestige of the French Government is worthily maintained in the East. Pondicherry is also the scene of considerable religious pomp and missionary activity. It forms the seat of an Archbishop with a body of priests for all French India and of the Missions Françaises, the successors of the Mission du Carmel founded by the Jesuits in 1776. But the chief field of this mission lies outside the French Settlement. A large proportion of its Christians are British subjects and many of the churches are in British territory. The Petit Bazar is the only legal trade within French territories. A line of railway running via Villoury from Pondicherry to Villupuram on the South Indian Railway maintains communication with Madras and the rest of British India and Karikal is linked to the same railway by the branch from Peralam. A Chamber of Commerce consisting of fourteen members nine of them European or persons of European descent was reorganised by a decree of 7th March 1914. The capital of Pondicherry is a very bad one and presents especially from the sea a striking appearance of French civilisation.

People and Trade

The Settlements are represented in Parliament at Paris by one senator and one deputy. These are at the present time Mons. E. Blaudin and Mons. P. Blusson respectively. There were in 1915 60 primary schools and 3 colleges. All maintained by the Government with 351 teachers and 9,006 pupils. Local taxation and expenditure (budget of 1915) 1,066,000 francs. The principal crops are paddy, groundnut and ragi. There are at Pondicherry cotton mills and at Chandernagar 1 jute mill. The cotton mills have in all 1,622 looms and 7,092 spindles employing 12,020 persons. There are also at work one oil factory and a new oil press for groundnut, one ice factory, one iron works and a cochineal factory. The chief exports from Pondicherry are oil seeds. At the ports of Pondicherry, Karikal and Mahé in 1914 the imports amounted to 264,233 francs and the export to 3,303,511 francs. At these three ports in 1914 232 vessels of over 500 tons entered and 249 of 788,866 tons cleared. Pondicherry is visited by French transoceanic sailing monthly between Colombo and Calcutta in connection with the Messageries Maritimes. The figures contained in this paragraph are the latest available up to November 1915 when this chapter was corrected.

PONDICHERRY

Pondicherry is the chief of the French Settlements in India and its capital is the headquarters of their Governor. It is situated on the Coromandel Coast, 105 miles from Madras by road and 122 by the Villupuram Pondicherry branch of the South Indian Railway.

The area of the Settlement is 115 square miles and its population in 1914 was 170,182. It consists of the four communes of Pondicherry. The Settlement was founded in 1674 under François Martin. In 1693 it was captured by the Dutch.

but was restored in 1800. It was besieged four times by the English. The first siege under Admiral Boscawen in 1748 was unsuccessful. The second under Eyre Coote in 1761 resulted in the capture of the place which was restored in 1765. It was again besieged and captured in 1778 by Sir Hector Munro and the fortifications were demolished in 1779. The place was again restored in 1783 under the Treaty of Versailles of 1783. It was captured a fourth time by Colonel Bruthwaite in 1793 and finally restored in 1816.

The Settlement comprises a number of isolated pieces of territory which are cut off from the main part and surrounded by the British District of South Arcot except where they border on the sea. This fact occasions considerable difficulty in questions connected with crime, land customs and excise. The Collector of South Arcot is empowered to deal with ordinary correspondence with the French authorities on these and kindred matters and in this capacity is styled the Special Agent. At Pondicherry itself is a British Consular

Agent accredited to the French Government, who is usually an officer of the Indian Army. The town is compact, neat and clean, and is divided by a canal into two parts, the *Ville blanche* and the *Ville noire*. The *Ville blanche* has a European appearance, the streets being laid at right angles to one another with trees along their margins reminding the visitor of continental boulevards and the houses being constructed with courtyards and embellished with green venetians. All the cross streets lead down to the shore where a wide promenade facing the sea is again different from anything of its kind in British India. In the middle is a screw pile pier which serves when ships touch at the port as a point for the landing of cargo and on holidays as a general promenade for the population. There is no real harbour at Pondicherry, ships lie at a distance of about a mile from the shore and communication with them is conducted by the usual *mandia* boats of this coast. Facing the shore end of the pier is a statue of the great Dupleix to whom the place and the French name owed so much.

CHANDERNAGAR

Chandernagar is situated on the bank of the Hooghly a short distance below Chinsura. Population (1914) 28,916. The town was permanently occupied by the French in 1688 though previously it had been temporarily occupied by them at a date given as 1672 or 1676. It did not however rise to any importance till the time of Dupleix. It changed hands between British and French various times during the Napoleonic wars and was finally restored to the French in 1818.

The former grandeur of Chandernagar has disappeared and at present it is little more than a quiet suburban town with little external trade. The railway station on the East Indian

Railway is just outside French territory 22 miles from Calcutta (Howrah). The chief administrative officer is the Administrator who is subordinate to the Governor of the French Possessions. The peculiar situation of Chandernagar affords unusual facilities for the escape from British territory of thieves and for the operations of smugglers in opium and other excisable articles. Considerable trouble was experienced a few years ago by the escape of political refugees there. The chief public institution is the College Dupleix formerly called St. Mary's Institution founded in 1882 and under the direct control of the French Administrator.

KARIKAL

Karikal lies on the Coromandel Coast between the Tanjore District of Madras and the Bay of Bengal. The Settlement is divided into three communes containing 110 villages in all, and covering an area of 33 square miles. It is governed by an Administrator subordinate to the Governor at Pondicherry. The population has in recent years rapidly decreased. In 1883 it was 97,055; in 1891 79,268; in 1901 60,595; in 1912 36,579; and in 1914 43,764, but the density is still very high, being 1,068 persons per square mile. Kumbakonam is the only taluk in Tanjore District which has a higher density. Each of the three communes—namely, Karikal, La Grande Allee and Nedungadu—possesses a mayor and council. The members are all elected by universal suffrage but in the municipality of Karikal half the number of seats

are reserved for Europeans or their descendants. The country is very fertile being irrigated by seven branches of the Cauvery besides many smaller channels.

The capital of the settlement is situated on the north bank of the river Arasalar about 14 miles from its mouth. It has a brisk trade in rice with Ceylon and to a less extent with the Straits Settlements. It has no commerce with France and very little with other French colonies. The port is merely an open roadstead provided with a light house 14 feet high the light in which has a range of from 8 to 10 miles. Indian labourers emigrate from Karikal to the French colonies in large numbers. In 1899 Karikal was connected with Perallem on the Tanjore District Board Railway. Karikal finally came into French possession on the settlement after 1815.

The Indian Frontiers.

In the three editions of *The Indian Story*, in the article on the Indian frontiers it was pointed out that this question was for nearly three generations an issue between Great Britain and Russia. With one or two notable exceptions British statesmen and British soldiers were able to view this issue only in terms of Russia, the attempt to neutralise by opposing Persia in every part of the world, by building up buffer states between the Indian Empire and Russia in Asia, and by maintaining in isolation the isolation of India on the Indian side. A sketch of the frontier difficulties of the Indian Government since the British began to assume territorial power in India is really a reflection of the history of Europe. Our earliest dangers were either internal or came from the sea. The sea men were a lot of trouble. The danger of the English and the Dutch left us with only one neighbour, the French, and when the empire of France had been shattered by the joining of the Catholic Suffragan but solemn and turbulent brother by the table support given to the great Duke and her hopes of advantage in India and the disposal by the overthrow of Hyderabad then the foreign war was laid for well over a century. Mountains the process of internal consolidation advanced so rapidly that when renewed pressure came from the North there was no rival to the British in India and only one considerable military power, the Sikhs, under Ranjit Singh. Such were the conditions when fear of Russian intrigues in Afghanistan and the belief that the Amir Dost Mohamed was lending a ready ear to them, induced the disastrous attempts to set the exiled Shah Shuja on the throne of Afghanistan and inaugurated the most deplorable episode in Indian frontier policy, the war of 1838. That was the first stage in the long duel between Great Britain and Russia for influence in Central Asia and in the confines of India. There are no pages in Indian history which are so unpleasant to turn. Our policy may be summed up in a sentence—impotent opposition to the Russian advance. Central Asia's Russian policy was much more simple. In part her advance sprang from the inevitable clash of a higher civilisation with a lower, in part no doubt, her officers were not loth to pay off by setting us in a ferment in Central Asia scores made on the heights of Baluchistan and at the British Conference. It was not until war was avoided by a hair's breadth that relations began to improve. The Russo-Afghan affray at Pendjeh in 1886 brought both countries to a realisation of what they were nearly fighting over. After that there was a slow improvement. The Russo-Afghan boundaries were delimited. The frontiers on the Pamirs were settled. There were alarms and excursions during the Russo-Japanese war when erroneous accounts were circulated of great Russian concentrations in Central Asia, and again when intrigues with Tibet forced Lord Curzon to send the Younghusband Expedition to Lhasa. But the ground was gradually prepared for the Anglo-Russian Agree-

ment and once after conclusion of that instrument the frontier question as it used to be understood has faded into the background until it was revived by German aggression.

The Land Route.

We have said that the Indian frontier question was a reflection of the general European situation. Whilst the gaze of the British people was concentrated on Russia, who it was thought a later possession could never have seriously considered the conquest of India, they failed to see the real moves which sprang from the eastern ambitions of Germany. It is one of the ironies of the situation that a British and a world at once contemptible who generally described a able actually encouraged the advance of Germany into Asia. Russia's counterpoise to Russia and thus laid the train for the present war. It was not open to doubt that the ultimatum to Serbia was designed to reduce the status to a condition of a study to Asia and that by so doing the way for an advance to Asia was the conquest of Constantinople and in advance through Asia Minor to the Persian Gulf. All the ambitions were centred in the revival of the **Land Route to the East**. We told our history of the last thirty years the real history of the land route to the East, written in little more than a history knowledge of the travels of Marco Polo. But for centuries the land route was one of the great highways of the world. When Alexander set out on his career of conquest twenty-two centuries ago there was no road in his road from Mesopotamia to Scythia and not a very difficult one to Mekran and so it came about that migratory movements either compulsory or voluntary continued through centuries ever extending their scope until one led by the desires of the Indian merchant the highways of the East were of the cold waste of Siberia. The **closing of this road** was due to the eruption of the Al-Hind, the Turk and the Mongol, and in particular to the final downfall of the Empire of the Khaliph, for the final closing of the land route was the closing of the land route. The land route was closed and the perfection of a communications system to the extent of any strong economy and for its revival. The improvement of the caravan route between Samarkand and Canton for Meibach represents the only progress of land communication of the British Empire for all the years. The abortive proposals for a canal across the Euphrates Valley in the building of the one project which might have prevented the later complicated times.

Advent of Germany

But if the British people failed to understand the teachings of history and were lulled into the complacent belief that the land route could be laid but it closed and all traffic with the East confined to the sea, whereas they were masters the German Government refused to subscribe to this comfortable delusion. The story of the revival of the land route and with it a whole chain of German ambitions

is little known and was for long preserved in fragments. It has however been told with authority and clearness in the 20th number of *The Times*. History of the War to which the reader in search of more detailed information is referred. We propose to summarise that story here although parts of it more properly belong to the detailed frontier sections which follow—

The first visit of the Emperor William to Constantinople in 1889 saw the dawn of a **Pan Germanic Scheme** which was known in Berlin as the **B.H.B.—Bismarck Baghdad**. After the war began a Froth or legerism at Berlin said that Germany's aim might be summed up in four catchwords—North Sea Constantinople Baghdad Indian Ocean. Another favourite expression attributed to the Emperor was a Germanic wedge reaching from Hamburg to the Persian Gulf. The steps towards this goal were very deliberately taken. The first measure was to acquire supreme **Influence at Constantinople**. This was done by a skilful courtship of Abdul Hamid and of other maintaining his influence against the rest of Europe. At a time when Abdul Hamid's hand wavered with the blood of the Armenians murdered by his orders in his capital and his provinces the Kaiser professed himself his warm friend and steadily refused to support any measure to save the lives of the Armenians or to weaken government in Macedonia. The reward came in valuable concessions. The Deutsche Bank group which had acquired control of the railways of European Turkey extended its influence to Asia Minor. After the second visit of the Kaiser to Constantinople in 1898 there came the Baghdad Railway concession (q.v.) by which the Sultan granted a concession for the construction of the Anatolian railway (a German enterprise) to Baghdad and the Persian Gulf to a German syndicate. It was styled *The Imperial Ottoman Baghdad Railway Company* and the concession was signed on behalf of Germany by Herr von Siemens of the Deutsche Bank. For a further and more definite concession granted in 1903 to Herr von Siemens of the Deutsche Bank Turkey guaranteed a right of way on the east of the line at the rate of £100 per annum per kilometre. This was sufficient to ensure the promoters a handsome profit on the enterprise regardless of the traffic conditions. There is a good deal of misconstruction with regard to the line which the Germans are building under this concession. All sort of rumours have been made on the assumption that the line will be used only for slow trains and the conclusion has been drawn that the sea route will be able to compete with it for passenger traffic. The fact is that the latter section of the line is being built to a standard which in India is applied to **express traffic**, and which even in the Indian hot weather permits trains to be run at fifty miles an hour.

Persian Gulf Port

An essential part of this scheme was a port to serve as a terminus for the railway in the Persian Gulf. The steps taken to this end are very characteristic of Teutonic commercial diplomacy. The first German firm to appear

in the Gulf was that of Wernkehaus & Co. of Hamburg which in 1896 began to deal in shell and mother of pearl at Lingah. The next year the Germans established a vice consulate at Bushire where there were then six German subjects in the Persian Gulf. In 1899 after the signing of the definitive Baghdad Railway concession this activity increased. The German consul at Astrakhan visited various parts of the Gulf. A party of German scouts appeared at Bender Abba. In 1900 Herr Stenrich German Consul General at Constantinople travelled overland to the Gulf at the head of a mission which included the German Military Attaché at Constantinople. He visited Sheikh Mulwar of Kowit and tried to buy a site at Ras Adhamia at the head of the bay as a terminus for the railway. He was refused for the Sheikh did not enter into an agreement with Great Britain nor to leave the disposal of any part of his possessions to a foreign power without our permission. Difficulties in the negotiation led the Germans who were now all powerful at Constantinople stirred up the Turk to attack Sheikh Mubarak. In 1901 a Turkish army of 6,000 men with troops sent into Kowit harbour and the commander announced that he proposed to take possession of the town. A British officer intervened and the Turks sailed away. Later a high Turkish official with a menacing letter to the Sheikh entered the harbour and tried for the same reason. Two other attempts were made: the first was to stir up Ibn Paisha of Central Arabia to attack Kowit the second to incite Mubarak's nephews to the same end with the failure of these efforts the dire of German attacks on Kowit came to a conclusion. They once again had recourse to the Turks. They seemed to have discovered an alternative terminus to the railway in at Khor Abdullah north of Kowit and were trying down to establish posts there which remained until the eve of the war.

Meantime commercial penetration was active. The firm of Wernkehaus was exceedingly active and expanded all over the Gulf over on lines which could not have been commercially profitable. Various attempts were made to acquire a port at Zanzibar and on almost succeeded. The Sheikh of Sharjah granted a concession to three Arabs to work the red coral deposits on the island of Abu Mena and the Arabs transferred it to the Wernkehaus firm. The Sheikh protested and with the assistance of the British the intruders were removed. The German Press protested but the Government confined themselves to a formal caveat. Another German agent sought to obtain an irrigation concession in the Karun. The Hamburg America Company entered the Gulf trade with a great flourish of trumpets and a display calculated to impress the Arabs. This was the position when three years before the war a serious attempt was made to arrive at an agreement between Great Britain Germany and Turkey which would recognise the position. It provided that the terminus of the Baghdad Railway was to be at the true commercial terminus Basra. No extension beyond Basra was to be made without the sanction of Great Britain. Turkey agreed to

abandon her pretention to suzerainty over the Bahrein Islands, Maskat and the territory of the Trucial Chiefs and to evacuate the Peninsula of El Kahr near Bahrein. Great Britain agreed to recognise the suzerainty of Turkey over Kuwait on the condition that Turkey did not

interfere in the internal affairs of the Sheikhdom and recognised the British conventions with Mubarak. This agreement and a complementary agreement with Germany were understood to be ready for signature when the war broke out.

THE EXPEDITION TO BASRA.

At this point we may conveniently summarise the progress of the expedition to Baghdad. Although a consideration of the position of Basra and Baghdad in the policy of the Gulf properly belongs to a later section. For some time before the actual outbreak of hostilities on October 29th 1914 the British Government had known that the participation of Turkey in the war on the side of Germany was inevitable. They were determined not to give the Turks any cause for hostility, but at the same time they were prepared. A Force, under Fildes, Commander-in-Chief, was sent to the Gulf of Bahrein to be ready for all emergencies. Consequently when the Turks commenced hostilities it was in a position to act with vigour. The first British troops reached the base at the mouth of the Shatt el Arab on November 2nd and took up an old abandoned Turkish fort and cable station. They then proceeded thirty miles up the river and landed at Sandyah in order to protect the work of the Anglo-Persian Oil Company which is working a valuable petroleum concession in the valley of the Karun (q.v.). On November 13th Lieutenant General Sir Arthur Barrett, who had been placed in command of the operations, arrived with strong reinforcements and on November 15th drove the Turks from part of the village of Saladin. On November 17th the whole force moved north toward Saladin and fought in touch with the Turks at Sabhal on the river and after a hard action in which the Dorsets capitulated they had themselves driven out with considerable loss. On the morning of the 17th came the unexpected intelligence that the Turks had evacuated Basra and that the Arabs were looting the town. Sir Arthur Barrett pushed forward with all speed by land and river and on November 19th the British troops formally entered the city. The result was a sensible, a proclamation among the Arabs for the occupation and the indifference of the British Government was ended and salutes were fired.

Importance of Basra.—The importance of Basra was for long little appreciated by the British people, who had their gaze directed on the possibilities of how it was a terminus for the Baghdad railway and for the traditional stories of Baghdad itself. But Basra is bound to become one of the great ports of the world. The main portion of the city lies up a constructed Aschar Creek a quarter with narrow unpaved streets two miles from the river. The population is estimated at 60,000 but there are probably many more people in the outer suburbs. The population is very mixed including many Jews and Armenians. The Turks are few in number and consist mainly of the officials and the garrison. The merit of the city lies in its geographical position. It lies just below the confluence of the Tigris

with the Euphrates and thence receives the traffic of the two rivers. It is only sixty miles from the sea and the river channel is so deep that it is easily made available for the passage of the largest tonnage that can pass through the Suez Canal. The only obstacle to its rapid development is the bar at the mouth of the Shatt el Arab and as this of the softest mud it could easily be dredged. Basra must of necessity be the port of the Middle East, under direct government by Mesopotamia and the decline of the war and it will become a powerful commercial factor in Asia.

The Garden of Eden.—After their retirement from Basra the Turks established themselves at Kurra forty miles northward where the partially blocked channel of the Euphrates joins the Tigris. This is often said to be the site of the Garden of Eden. It was determined to expel them. An expedition for this purpose left Basra on December 3rd, and after preliminary successes found the Turks in such force and so strongly entrenched that reinforcements were needed. These arrived on December 15th the river was heavily crossed above Kurra and then at midnight on the 16th a small rearguard came down the river carrying an offer from the late Governor of Basra, Subul Pay, to surrender. An unconditional surrender was demanded and refused and at one o'clock p.m. on the 16th the Turks laid down their arms. In the morning a force of Turks with their guns established themselves on the Hattah Canal about seven miles north of the Vizra Camp near Kurra and were shelled out more serious fighting was to follow.

Fight for Shaiba.—The object of the Turks was now to recapture Basra. They had no large force nearer than Baghdad which lies on the Tigris 500 miles (by river) north west of Basra. Their first route to Basra down the Tigris was now cut because by the British occupation of Kurra. The Turkish force therefore came down that river as far as Kut al Amarah (220 miles from Lacediad) and thence along the Shatt el Arab the canal which connects the Tigris with the Euphrates to Na'arrah on the left river. From this point about 110 miles north west of Basra they marched north the desert 7,000 strong. At Shaiba 10 miles west of Basra they encountered a British force much inferior in number. Here on April 12-14 very severe fighting occurred—far more severe than any previously experienced in Mesopotamia. For some hours on the last day the issue hung in the balance and at one time our retirement seemed inevitable. In the end we were completely successful. The Turks had at least 5,000 casualties ours were about 1,300.

Capture of Amara.—After our capture of Kurra on December 9 the Turks occupied a

number of low hills to the north from which they steadily bombarded the town it was necessary to evict the enemy from their positions before we could advance north of Kurra. The problem was a formidable one because the whole country for many miles to the north was under several feet of water except a few island sandbanks and jullecks such as those occupied by the enemy. The country is thus flooded every year on the melting of the snow in the far north round the head of the Tigris. The ground remains under water for six months or more and the only thing to be done was to attack the enemy's positions in boats. The local boat called a *hullum* has a length of about 50 ft and a beam of 21 ft and is propelled by poles like a punt or in deep water by paddles. The whole of the boats stationed in Kurra was engaged in a good many weeks in learning to navigate these boats. At the same time numerous small guns were mounted on various other boats and run to enable them to approach within range of the Turkish position. At dawn on May 1 the whole British moved out of Kurra for the attack. Several hundred boats were employed, each holding 10 men. Machine and mountain guns were mounted on pairs of boats side by side. The spectacle of a brigade of infantry thus advancing across a flooded country was perhaps unique in the history of the British and Indian Armies. Before the advance the Turkish positions were bombarded from the Tigris by three sloops of the Royal Navy, by the Royal Indian Marine steamers *Lawrence* and *Ly*, the field guns already mentioned. The low hill attacks were completed by Turks and Kurds with about half a dozen German. Most of the flooded area to be crossed was thickly covered with reeds, through which the progress of our boats was very slow. The enemy had therefore a magnificent target. Fortunately they had no machine gun while their rifle fire was not good. They had six field guns but their ammunition was inferior and their gunners poor.

On Norfolk Hill three miles north of Kurra and the first position to be attacked, the enemy put up a fairly good fight and the hill was not captured without a good deal of heavy work. Our men leaving their boats and running the Turkish trenches. From all their other positions six in number the enemy fired as a result of our bombardment or when their retreat was cut off surrounded without resistance. They had previously sunk several large barges across the Tigris a few miles north of Kurra in order to prevent our steam vessels from cutting off their retreat. But the work was not thoroughly done and by the evening of June 1 the second day of the operations our steamers were past the obstruction and in pursuit of the fleeing enemy. On June 3 we occupied Amarah 87 miles above Kurra without opposition. This town has a population of 10,000 and is the most important place on the Tigris between Baghdad (270 miles up stream) and Basra (130 miles down stream). By the evening we had captured 80 officers and 2,000 men, seven guns, several river steamers and other craft and a large amount of ammunition. Lightly armed were found on Norfolk Hill and a few of the prisoners had

been wounded there. Our own casualties during these four days were one British officer killed and 20 other casualties. The prisoners taken included three German non-commissioned officers. Five other Germans believed to be officers escaped into the marshes but two of them were killed within a few hours by Beduin Arabs.

Nasiriyeh—The capture of Amara was of more importance than the expulsion of the Turks from one centre. If the map is studied it will be seen that after their retirement from Basra the Turks had three lines of advance from Amara they could move against the valley of the Karun or Bera at will from Amara and then run eastwards towards Basra. They did when they attacked at Shabab. Now the advance against Amara was accompanied by vigorous operations up the Karun and it is believed that the Turks who retired from Basra intended to strike at Amara, then to head the Karun and then to strike at Amara. Amara suffered very much from the Turks who systematically murdered the wounded and the traggles of both sides. But from the capture of Amara the Turks still had a doubtful line of advance down the Shatt el-Hu and down the Tigris. In a report on the night of June 10 it was stated that the British line of communications via the Tigris. The first aim aimed at the capture of Nasiriyeh. The operations under General Gorringe which culminated toward the end of July in the brilliant victory for British arms just outside Nasiriyeh and in the capture of Nasiriyeh itself occupied almost exactly a month. As in all operations in Mesopotamia there were conducted a much by water as by land. Throughout the advance the heat was intense and there were few days that the temperature did not reach 110 degrees in the shade. By day the heat in the iron vessels and the glare from the water were almost intolerable. By night many male mosquitoes gave little rest to the weary troops.

The Turks had constructed a dam on the Hakika channel a short distance outside the Hammar lake. Although the existence of this dam was known it proved a much more difficult obstacle than had been at first expected. The Turks chose the site carefully and expended a vast amount of labour on its construction. It took the British a week of hard work to pass their boats by means of numerous ships through it. All this had given time to the enemy to bring up reinforcements and the British were now faced by a force greatly superior in numbers to their own. The enemy occupied an entrenched position on both banks of the channel at the point where it leaves the Tigris. On the 6th the British attacked the Turkish position on both sides of the channel. Infantry moved along the right bank assisted by the fire of gun boats which moved up the channel behind them sweeping for mines. A fleet of *hullums* (small flat bottomed boats) and the 30th Mountain Battery on rafts moved up the lake with the infantry attack protecting their flank from a horde of Arabs who threatened an attack from the other side of the lake. The



enemy's trenches were well constructed and were held by a mixed force of Turks and Arabs, but the attack did not falter and so resolutely did the British push on that they not only occupied the trenches but crossing the Euphrates in Belgium they attacked the Turkish Artillery position and captured a complete battery.

The Turks retired up the river and on the next day the British pushed on reaching Al and on the evening of the 6th. On the 8th it became evident that heavy reinforcements had reached the enemy. General Crompton realised that he must wait until he was in a stronger position to attack and set work to strengthen his own defences. The last of the reinforcements reached General Goringe on the 22nd and he made up his mind to attack the enemy on the 24th. It was 10.30 in the evening before they were able to capture the last position at the point of the bayonet the Turks refused either to surrender or leave the trenches. That night the naval boat pushed on to Xer's h encoutrung a good deal of opposition they entered the town. The firing gradually died down however and by the time the troops were able to march in all resistance was at an end. All the artillery which the Turks had at Xer's h 17 guns including one 142 howitzer fell into the hands of the British as well as about a thousand prisoners and large stores of rifle and ammunition.

Kut el Amara—A very detailed account of the minor operations which led up to the battle on the 27th and 28th September would fill many columns for the British force had left the lower reaches of the river and was operating 50 miles away from its base with little communication, tramping down the winding uncertain course of the Tigris. The Turks had taken up a position on both banks astride the river with intention of preventing the British forces from reaching Kut el Amara. The line of defence lay almost north and south for here the river flows approximately from West to East. A few miles above the Turkish position the river flows again more to the North. A boat bridge crosses the Tigris three miles below Kut el Amara. The defence constructed by the Turks stretched for about six miles on either side of the river. A solid river bed branch of old right angles to the right bank of the river and at right angles to the right bank of the river was the only outstanding feature in the whole monotonous landscape. A bridge of boats had been constructed at the place of confluence and this bridge was an important factor in General Townshend's plan for attack. Broadly this plan was to make a demonstration against the enemy's right flank on the right bank of the river to give him the impression that this flank was to be the object of the main attack and then by means of the bridge to cross to the left bank of the river with the majority of his force and attack the Turkish left. Dawn on the 27th found the whole of the force in position. An immediate start was made and in a short time the whole of the line was engaged by the enemy's long range fire. The British troops on the right bank developed heavy artillery and infantry fire driving in the

advanced Turkish troops, in the hope that their right would be reinforced and their left weakened. As soon as light appeared, General Delamain pushed his force for attack. The greater part were directed to a flank attack on the enemy's extreme left while the remainder advanced to a frontal attack against the left portion of the position of defence between the two marshes. General Fry at the same time developed all his strength in the hope of being able to close with the Turks in front of him. On General Delamain's force the flank attack soon found that owing to the extent of the marsh the route which they would have to take was much more circuitous than had been expected. Meanwhile the frontal attack had become so seriously engaged that General Delamain decided to push home an attack with the troops at his disposal on the extreme left of the Turkish defence in front of him. The infantry rushed forward and captured the first line of trenches at the point of the bayonet. Here their work was by no means finished for a determined fire swept them from the rest of this section of the defence which was still in the hands of the enemy. A wheel to the left in the maze of trenches brought them face to face with very strong belts of Turks and after a gallant attempt to force their way forward they were compelled to await the landing troops of the flanking force which were now coming round the marsh junction with these was effected at about half past ten in the morning. Continuing on the right they swept the whole of the Turkish defence between the two marshes from left to right only completing their task at two o'clock in the afternoon. They were waiting for want of water but by marching round the back of the enemy's position between the river and the marsh General Delamain hoped to reach the river at one of its bends where it was called upon to meet the enemy again. In this hope the column advanced and at about 6 o'clock in the afternoon had reached a point behind the Turkish position about a mile and a half from the river. Here they suddenly came under a very violent artillery fire from the further bank of the river and General Delamain's right flank could not reach water by that route and he failed to attack the Turkish position from the rear and changing the direction of his column marched straight towards the trenches. This was about half past five and the light was beginning to fail. Hardly ten minutes after the column had reached when the British column realised that they were marching parallel to a large force of the enemy's infantry a distance of about a mile. There was nothing for preparation or orders for attack nor indeed was there any need for them. An order to right turn brought the British infantry and guns face to face with the Turkish force. Without firing a shot the troops turned and advanced on the enemy. The Turk had realised the situation at the same moment but fortune favoured them for the road along which they were passing lay along the edge of a disused sunken water-cut and they quickly slipped into this. Though suffering heavy losses the British pushed straight on only pausing to return the

had before they closed with the enemy. At 200 yards the order was given to fix bayonets and as the whole line surged forward to the final assault the Turks broke from their shelter and fled. Thus was the force of seven regiments with guns with which Nuri Dik was reinforcing his hard pressed left. The Turks evacuated the whole position during the night

leaving many guns and much ammunition. The Cavalry occupied Kut el Amara on the morning of the 25th and the pursuing force reached it by river on the morning of the 30th when Kut el Amara was formally occupied by the British.

The British force were, on December 1st only sixty miles from Baghdad.

THE PERSIAN GULF

The situation in the Persian Gulf which is at present the corner stone of the Indian frontier problem is one of baffling indefiniteness. Our first appearances in these waters was in connection with the long struggle for supremacy with the Portuguese, the French and the Dutch who had established trading stations there. With the capture and destruction of the great entrepot which the Portuguese had established at Ormuz and the supersession of the land route by the sea route coupled with the appearance of anarchy in the interior the importance of the Gulf declined. The Indian Government remained there primarily to preserve the peace, and this task it has since successfully performed. Piracy which was as destructive as the ravages of the Barbary corsairs was stamped out by the Trucial Chiefs who occupy the Pirate Coast were gradually brought into close relations with the British Government and the vessels of the Royal Navy have since kept watch and ward in the Gulf whilst our Consuls have regulated the external affairs of the Arab rulers on the Arabian Coast.

A Policy of Abnegation

In return for these services Great Britain has claimed no selfish advantages. The water of the Gulf are as free to the navigation of other flags as to the Red Ensign. The only territorial possession is the tiny station of Bassid Point after point has at one time or another been occupied by British troops. Muhammerah and the lower valley of the Karun valley were occupied during the war with Persia in 1857. Bushire was long held in the same connection and still bears marks of our regime in the once tolerable road. The Island of Kharak was occupied from 1827 to 1842 and again in 1857. We had a military station at Kait during the Pirate wars, and a military and naval station at Kishm from 1829 to 1879. Jask was occupied as a cable station but subsequently returned to Persia. The only cables of the waters are British. The only cables are British. The few navigation marks are maintained by the British India Company and two steamship services a fast mail service and a slow trading service, are run by the same corporation. Apart from these direct acts, Great Britain might at any time have seized the whole Arabian Coast and the Persian shore. But in pursuit of a resolute self denying ordinance she has kept the peace and demanded no reward.

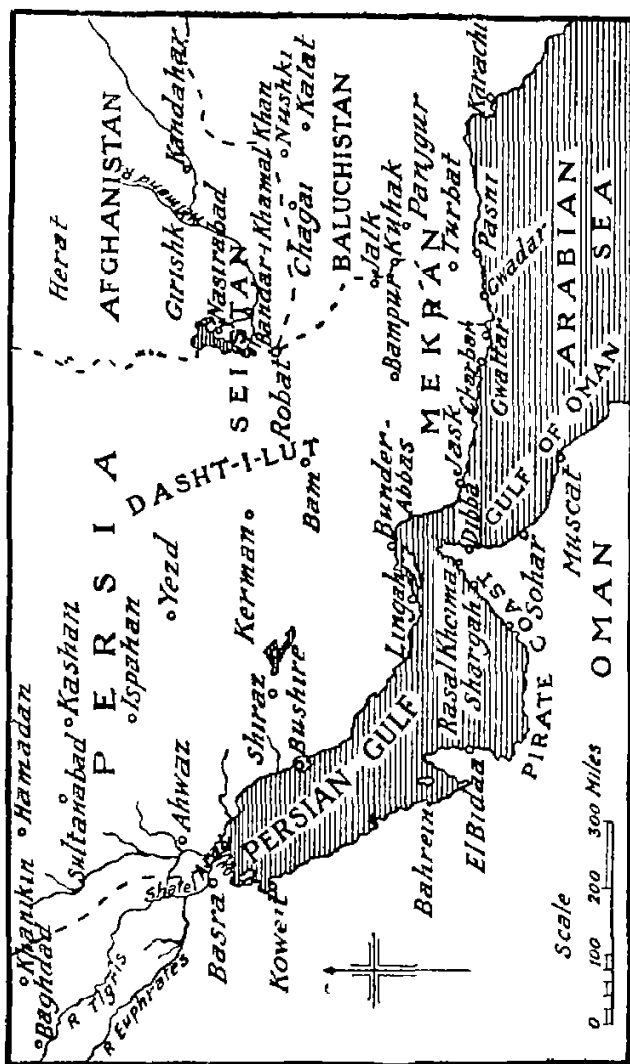
European Intrusions.

Left to herself, Great Britain would desire no other policy. But the affairs of the Persian Gulf have passed into the region of international politics, and the past quarter of a century has witnessed successive efforts to turn the British position. Basing her interference on a treaty

which gives her equal rights with Great Britain France attempted to acquire a coaling station at Jissa near Maskat and subsequently obstructed British efforts to stamp out the slave trade and the arms traffic which was supplying weapons of predation to the tribes on our North Western Frontier. Turkey, whether acting on her own volition or as the agent courier of Germany, threatened the territory of the Sheikh of Bahrein, who is in special relations with us and of the Sheikh of Koweit who owns the only harbour which would make a Gulf terminus of the Baghdad Railway. Persia stirred from Teheran when Russian influence at the court of the Shah in Shah was supreme established a foreign Consulate in the Gulf, and pressed our good friend the Sheikh of Muhammerah Russia and Germany sent heavily subsidised merchant ships into the Gulf in order to establish trading rights and posted Consuls, where there was neither trade nor legitimate interest. The last of these machinations a German attempt to bring a concession from the Sheikh of Sharjah was comparatively recently defeated. The collapse of authority in Persia has raised in an acute form the whole future of the Persian shore. In short the situation has changed from one where the influence of Great Britain was supreme to one where it is challenged at every point more especially by the industrial process of commercial strategy at which a nation brought up in the traditions of free trade is handicapped.

The Gulf and the Empire

With these attacks there has come a closer appreciation of the bearing of the Persian Gulf on the defence of the Indian Empire. The strategic importance of these waters has been laid down by a writer of unchallenged authority and unbiased mind. Writing in the *National Review* Admiral Mahan said: "Concession in the Persian Gulf whether by formal arrangement (with other Powers) or by neglect of the local commercial interests which now underlie political and military control will imperil Great Britain's naval situation in the Farther East, her political position in India, her commercial interests in both and the Imperial tie between herself and Australasia." Following this successive British Governments have made declarations of policy which are satisfactory as far as words can go. Speaking in the House of Lords on May 3 1903 Lord Lansdowne then Secretary of State for Foreign Affairs said: "We (the Majesty's Government) should regard the establishment of a naval base or of a fortified port in the Persian Gulf by any other Power as a very grave menace to British interests which we should certainly resist with all the means at our disposal." This declaration of policy



has since been endorsed by Sir Edward Grey. But the question which arose is whether in view of the intrusion of foreign Powers with aggressive designs, and the changing conditions on the littoral the purely negative policy which has hitherto satisfied Great Britain will suffice. It is a hard fact but a true one that if British authority disappeared tomorrow, it would leave no other relic than the Ahbandan oil refinery, a few consular buildings and the tradition of justice and fair dealing. That is a question which can best be considered after a brief survey of the various jurisdictions which are established in the Gulf.

Masakat

Masakat which is reached in about forty-eight hours from Karachi is outside the Persian Gulf proper. It lies three hundred miles south of Cape Musandam which is the real entrance to the Gulf but its natural strength and historical prestige combine to make it inseparable from the politics of the Gulf with which it has always been intimately associated.

The approach to Masakat is dramatic. The mail steamer gently picks her way along a coast more black and forbidding even than the iron-bound littoral of the Gulf of Suez which is so familiar to the eastward passenger. Suddenly there appears on the coast the white line as of the trading settlement of Mattra which lies to the north of Masakat. Then with a sharp turn the bow of the steamer passes under a giant rock painted with the name of the warships which have visited Masakat for half a century, and enters the landlocked harbour. Twin towers are reared by the Portuguese command the height which overlook the town, the town itself clusters on the shore and climbs the high ground behind it, and it itself is huddled off from the Arabian desert by a stone wall on the landward side. Formerly Masakat was part of a domain which embraced Zanzibar and the Islands of Kishum and Larak with Bunder Abbas on the Persian shore. Zanzibar was separated from it by agreement and the Persians succeeded in establishing their authority over the possession on the east coast. Sultan Nijed Fazel the influential Arab ruler who reigned over Masakat only though he claimed a shadowy suzerainty over the chiefs on the coast of Oman died in October 1913.

The relations between Britain and Masakat have been intimate for a century and more. It was under British auspices that the separation between Zanzibar and Masakat was effected, the Sheikh accepted a British subsidy in return for the suppression of the slave trade and in 1892 sealed his dependence upon us by concluding a treaty pledging himself not to cede any part of his territory without our consent. Foreign intrigues with Masakat did not commence until 1894 when the French in pursuit of the pinpricking policy, through which they were avenging Egypt and perhaps to assist Russia, established a consulate there. The Sultan was induced to cede to France a coaling station at Jisra, but this was such a clear violation of the Treaty of 1892 that it

could not make good, and France had to accept the poor alternative of a leased depot. A more serious dispute arose over the use of the French flag to cover the slave trade. Native craft would secure the protection of the French flag by registering at Jibuti and then defy the Sultan of Masakat and they were enabled to traffic in slaves with impunity inasmuch as there was rarely a French warship in the neighbourhood to search them. In April 1903 the trouble came to a head, and the French flagship *Infant* was sent to Masakat to demand the release of dhows which had been arrested for a flagrant breach of the quarantine rules. This emphasized the necessity of a permanent settlement and the question was referred to the Hague Tribunal and a working compromise arranged. It was adjudged by the Hague Tribunal in 1905 that after January 2, 1892 France was not entitled to authorize vessels belonging to subjects of the Sultan of Masakat to fly the French flag, except on condition that their owners or officers-out had established or should establish that they had been considered and treated by France as her protectees before the year 1863, though owners of dhows who before 1892 had been authorized by France to fly the French flag retained this authorization as long as France renewed it to the grantee. The conclusion of the *entente* with France put an end to these pinpricks but one important issue remained outstanding until 1914. France claimed under the Anglo-French Treaty of 1862 freedom of trade with Masakat. There was carried on for years a lucrative arms traffic with the Gulf rifles and ammunition being shipped from Europe to Masakat and then distributed all over the littoral and even to the North West Frontier of India. The extent of this evil compelled the British Government to intervene and elaborate arrangements were made to check the traffic by stopping the dhows carrying arms and by harrying the gunrunner's shore. This is more fully considered under Gunrunning (q.v.). In effect the British warships had to witness the dumping of cargoes on the shore at Masakat see them loaded into dhows and trust to their own vigilance to arrest these consignments on the high seas. Prompted by the Colonial Secretary the French Government refused to yield one jot of their treaty rights in the hope that Great Britain would buy them out by succour at Cambia. The difficulty was largely overcome by the establishment of a bonded warehouse for arms at Masakat where all consignments have to be deposited and whence they are only issued under certificates of destination and by an agreement negotiated in 1914 the French Government recognised the new Arms Traffic Regulations and abandoned the privileges and immunities secured to them by Treaty. Compensation was paid by the British Government to those French merchants whose stocks were rendered valueless by the Regulations.

In 1914 jurisdiction was given to the Vice-Admiralty Court at Aden and the consuls within the dominions of Zanzibar, Masakat and Madagascar for the more effectual suppression of the slave trade on the East Coast of Africa. By an Order in Council which came into force

on August 1 1914 the Act had been extended so as to comprise the Court established by the Persian Coast and Islands Order in Council 1907. Thus the Consul General for Pers and the coasts and islands of the Persian Gulf will be able to enforce the suppression of the slave trade in that neighbourhood which was agreed to be desirable in a treaty made with the Persian Government so long ago as 1824.

The Sultans have been in a difficult position for a good many years. They hold their capital of Maskat the adjacent town of Baidra on one of the other coast towns and certain parts in the interior but as they possess a few troops they find themselves unable to control the roving Beduin who wander at will over most of the State. When the Beduin raid a town they are wont to rid down to Maskat the centre of the date trade and threaten to sack the town. The last Sultan who died in 1913 was generally compelled to bith them to go away. The rising which began in 1911 was a more serious affair. A Persian Sheikh Abdullah seized the inland town of Baidra which stands in a spacious rich valley where is grown most of the dates for which Maskat is famous. Great Britain has special interests at Maskat based upon various documents the chief of which is one drafted in 1891. The last Sultan asked us to protect him against the Beduin. We said we would post it in capital and commitments but could not and an expedition into the interior against the elusive Beduin. We sent Indian troops to Maskat and they have been there ever since. It is quite probable that the tribesmen were excited by the new or the Great War and determined to push their own roving more vigorously. The rising culminated in an attack on the outpost of Maskat on the 10th and 11th of 1911. A detachment of the 60th Infantry and the 102nd Grenadier had previously been sent to support the garrison and the attack was driven back with casualties amounting to 90 men. There was no further attack and the rebels were reported to be greatly disheartened.

British Consul Major H. Stewart C.I.E.
Agency Surgeon Major

The Pirate Coast.

Turning Cape Musandim and entering the Gulf Proper we pass the Pirate Coast controlled by the six Principal Chiefs. The name of this territory has now ceased to have any meaning but in the early days it had a very real relation to the actual conditions. The pirates were the boldest of their kind and they did not hesitate to attack on occasion and not always without success. The companies of ships of war large expeditions were fitted out to break their power with such success that since 1820 no considerable punitive measures have been necessary. The Principal Chiefs are bound to Great Britain by a series of engagements, beginning with 1806 and ending with the perpetual treaty of 1853 by which they undertook to prohibit altogether the traffic in slaves. The relations of the Principal Chiefs are controlled by the British Resident at Bushire, who visits the Pirate Coast

every year on a tour of inspection. The German attempt to obtain a concession from the Sheikh of Sharjah has been mentioned. A more serious question arose in 1912 when a landing party from H. M. S. Fox searching for contraband arms at Dehal was fired at by the resident Arabs and five men killed and nine wounded. The Sheikh made ample amends to the British Resident, and submitted to a fine. There was at first the suspicion that this *encroachment* arose from the spread of pan Islamism on the coast, studiously fostered from Constantinople and that it indicated a weakening respect for British authority. But fuller enquiries tended to show that it arose from an unfortunate series of misunderstandings. The commercial importance of the Pirate Coast is increasing through the rise of Dehal. Formerly Lingah was the entrepot for this trade but the excavations of the Belgian Customs officials in the empire of Persia has driven this traffic from Lingah to Dehal. The Tribal Chiefs are—Dehal Abu Hashem Sharial Ajman Um-al-Ghawain and Ras el Kneima.

Bahrain

North of the Pirate Coast lies the little archipelago which forms the chiefship of the Sheikh of Bahrain. Of this group of islands only those of Bahrain and Muharraq are of any size but their importance is not of any proportion to their extent. This is the great centre of the Gulf pearl fishery which in a good year may be worth half a million pounds sterling. The anchorage is wretched and at certain states of the tide lugs have to be four miles from the shore which is not very approachable by boat and passenger mails and cargo have to be landed in canoes for which Bahrain is famous. But this notwithstanding the trade of the port is valued at over a million and a quarter sterling and the customs revenue which amounts to one eighty thousand pounds makes the Sheikh the richest ruler in the Gulf. Bahrain has passed through more than usually chequered experiences. Not the least remarkable of these are the efforts of the Turks to threaten its independence. These took definite form in the third quarter of the last century when Midhat Pasha, Vail of Basra occupied the promontory of El Kater as well as El Katif over against Bahrain and converted El Kater into a district. The war with Russia put an end to these designs but they were revived and the Turks at El Katif are still a menace to Bahrain but negotiations for their withdrawal are pending. The Sheikh by the treaty of 1861 entered into special engagements with the British Government by whom his rights are guaranteed.

In the neighbourhood of Bahrain is the vast burning ground which has hitherto baffled archaeologists. The generally accepted theory is that this is the site of the Phoenicians who are known to have traded in these waters.

Political Agent Major T. H. Keyes.

Kowet.

In the north west corner of the Gulf lies the port which has made more stir than any place of similar size in the world. The importance of Kowet lies solely in the fact that it is the one possible Gulf terminus of the Baghdad

Railway This is no new discovery for when the Euphrates Valley Railway was under discussion General Chenevix selected it under the alternative name of the Grane—so called from the resemblance of the formation of the Bay to a pair of horns—as the sea terminus of the line. Nowhere else would Koweit be called a good or a promising port. The Bay is 20 miles deep and 5 miles broad but so shallow that heavy expenses would have to be incurred to render it suitable for modern ocean going steamers. It is sheltered from all but the westerly wind and the clear thriving town is peopled by some 20,000 inhabitants, chiefly dependent on the sea for the manners or Koweit are noted for their boldness and hardihood.

The political status of Koweit would baffle the ingenuity of the international jurist to find a definition. Nominally the Sheikh owes allegiance to the Sultan of Turkey from whom he has accepted a honorary title of *Kaimakam* or Local Governor. In practice he has always been independent. In 1871 the Turks attempted to convert their nominal suzerainty into something more actual but the Sheikh Mubarak approached the British Government and placed his interests under their special protection. When however the German surveyors earmarked Koweit for the terminus of their line the position of the Sheikh was indirectly attacked. To the north of Koweit there is a deep indentation in the low lying shore chiefly occupied by the swampy island of Bubian. Here a long narrow channel runs to Umm Khaseir the Khazir Abdulla. It is sometimes held to be an alternative to Koweit as a Gulf terminus and with a view to earmarking it the Turks have established military posts at Umm Khaseir and on Bubian Island. This is tended by domestic feul, raids by sea and attack by land. Sheikh Mubarak with a British backing has fended off all assaults on his position and with real action of the fact that Basra must in any circumstances be the commercial terminus of the Baghdad Railway the importance of Koweit has tended to recede.

Political Agent Lt Col W G Greig

Muhammerah

On the opposite side of the entrance to the Shatt el Arab lie the territories of a Sheikh who stands to the Persian Government in much the same relation as does Sheikh Mubarak of Koweit to the Government of Turkey—Sheikh Khazal of Muhammerah. Nominally he is subject to Teheran on whose aid he governs his territories as a viceroy in practice he is more like a semi-independent vassal. In personal characteristics too Sheikh Khazal has much in common with Mubarak he has proved that he possesses many of the qualities of an administrator and has raised Persian encroachments on his authority in all directions save one—despite his strong antipathy to the agents of a centralised government the Persians have installed an officer of their Belgian Customs service at Muhammerah. The town favourably situated near the mouth of the Karun River has grown in importance since the opening of the Karun River route to trade through the enterprise of Messrs Lynch Brothers. This route provides the shortest passage to Japan and the central tableland and already competes with the older route by way

of Bushire and Shiraz. This importance has grown since the Anglo-Persian Oil Company established refineries at Muhammerah for the oil which they win in the rich fields which they have tapped near Ahwaz. Its importance will be still further accentuated, if the scheme for a railway to Khorramabad by way of Dizful matures. A concession for a road by this route has long been held by a British Company and surveys for a railway are being made. There is a tacit assurance from the Persian Government that if a practicable scheme is put forward they will facilitate the work. Such a line, meeting the projected branch from Isfahan to Khamkin would intercept the trade of Central Persia and make Muhammerah the principal outlet for the commerce of the country. Sheikh Khazal is believed to have formed an excellent working understanding with his brother chief across the water and as the head of the great Kaab tribe he is no mean power in south western Persia.

Consul at Ahwaz (Captain E W O Noel)
Consul for Arabistan (Muhammerah) Lt Col R I Kennion

Basra

In a sense Basra and Turkish Arabistan can hardly be said to come within the scope of the frontiers of India yet they are so inseparably associated with the politics of the Gulf that they must be considered in relation thereto. Basra is the inevitable sea terminus of the Baghdad Railway. It stands on the Shatt el Arab sixty miles from its mouth favourably situated to receive the whole water borne trade of the Tigris and Euphrates Rivers. This is already considerable although Turkish obstruction has closed the Euphrates to navigation, as well as the Tigris above Baghdad—between Basra and Baghdad there are two services of river steamers, one controlled by Messrs Lynch Brothers and the other by a Turkish Company. The local traffic is valuable for the richness of the date groves on either side of the Shatt el Arab is indescribable, there is a considerable entrepot traffic whilst Basra is the port of entry for Baghdad and for the trade with Persia, which follows the caravan route to Kerman, Bah and Hamadan. When the Baghdad Railway is open Basra must absorb the whole trade of the eastern zone that is the trade which finds a easier outlet on the coast than at Alexandria on the Mediterranean. That is without taking account of the possibilities of the irrigation scheme prepared by Sir William Willcocks which would revive the glories of ancient Mesopotamia and make Arabistan another Egypt. Even now ocean going steamers trade regularly with Basra and deal mainly in bulk from its wharves. The one obstacle to the development of the port is the bar at the entrance to the Shatt el Arab where there are no more than ten feet of water at low tide, and where streamers drawing more than sixteen to eighteen feet have even at high tide to discharge part of their cargoes into lighters before making the river. The cost of dredging the bar would not be large and that done a first class port is almost ready made at Basra. Nothing can prevent it from becoming the port of the Middle East and if ever the Baghdad Railway is extended to the Gulf it will be for political not for commercial reasons.

Political Resident and *H. M. Consul General* for *Turkish Arabia* (Baghdad) vacant

Residency Surgeon and *Assistant* to the *Resident*, vacant

British Consul Mr F. K. Crow

The Persian Shore.

The Persian shore presents fewer points of permanent interest. The importance of Bushire is administrative rather than commercial. It is the headquarters of Persian authority, the residence of the British Resident, and the centre of many foreign consuls. It is also the main entrepot for the trade of Shiraz and competes for that of Isfahan. But the anchorage is wretched and dangerous. The road to Shiraz passes over the notorious kotahs which preclude the idea of rail connection and if ever a railway to the central plateau is opened, the commercial value of Bushire will dwindle to insignificance. Further south lies Lingah, reputed to be the prettiest port on the Persian coast, but its trade is being diverted to Debal on the Plateau Coast. In the narrow channel which forms the entrance to the Gulf from the Arabian Sea is Bunder Abbas. Here we are at the key of the Gulf. Bunder Abbas is of some importance as the outlet for the trade of Kerman and Yazd. It is of still more importance as a possible naval base. To the west of the town between the island of Kishm and the mainland, in the Clarence Straits which narrow until they are less than three miles in width and yet contain abundance of water. Here according to sound naval opinion there is the possibility of creating a naval base which would command the Gulf. The great obstacle is the climate, which is one of the worst in the world. On the opposite shore under the shadow of Cape Musandam lies another sheltered deep water anchorage, Elphen-ton, in which the climate conditions are equally vile. But between these two points there is the possibility of controlling the Gulf just as Gibraltar controls the Mediterranean. For many years Bunder Abbas looked large in public discussions as the possible warm water port for which Russia was seeking. Now it has reappeared in connection with the Trans-Persian railway. It is understood that the British Admiralty insist on that line meeting the sea at Bunder Abbas, where it would enter the British zone, and whence along the Coast of Mekran it would be commanded from the sea. The Lusitanian concessionaires wish the line to strike the sea much further east, either at the actual British frontier Gwattar or at Chahbar where there are believed to be the makings of a deep-water port. So far the project has not passed beyond the stage of academic discussion (q.v. *Railways to India*). On the Mekran coast there is the cable station of Jask and the possible port of Chahbar. The British Government temporarily occupied Bushire in 1910 in circumstances narrated in *Persia* (q.v.).

The Admiralty Oil Contract.

A further complexity was introduced into the position in Southern Persia and inferentially into Gulf politics, when the British Government on behalf of the British Admiralty entered into partnership with the Anglo-Persian Oil Company for the development of their oil

fields in the neighbourhood of Maidan-i-Naphtun.

The Concession.—The concession which the company was formed in 1909 to work was originally obtained in 1901 from the Persian Government by Mr W. K. D'Arcy. It granted the exclusive right for 60 years "to drill for, produce pipe and carry away oil and petroleum products throughout the Persian Empire except in the provinces of Azerbadjan, Gililan, Mazenderan, Astrabad and Khorassan. The area covered is about 500,000 square miles. In 1903 a First Exploitation Company was formed as a preliminary with a capital of £800,000 of which £344,000 has been issued, £20,000 in shares in this company was allotted to the Persian Government, as well as £20,000 in cash in return for the concession. When the Anglo-Persian Company was started in 1909 the actual holding of this Exploitation Company was limited to one square mile in the Maidan-i-Naphtun held situated in territory belonging to the Bakhtiari Khans. Under the terms of a separate agreement the latter received 3 per cent of the shares in any company formed to work oil in their country, and a second subsidiary company was then created known as the Bakhtiari Oil Company with a capital of £400,000. In order to cover the area within their territory outside the square mile allotted to the First Exploitation Company. In the First Exploitation Company the Anglo-Persian Company now owns 44.84 per cent, 87.8 per cent of the capital and Persian shareholders £45,140 or 12.05 per cent, in the Bakhtiari Company the Anglo-Persian Company owns 1388,000 or 97 per cent. The Persian Government is paid a royalty of 16 per cent on the net yearly profits. The fact that both the Government and the Bakhtiari tribes are interested in the prosperity of the company is regarded as an important factor in securing its position in a country otherwise rather unruly.

The Fields.—Oil has so far been found in quantity at Maidan-i-Naphtun, at depths of 1200 ft. to 1810 ft. in hard porous limestone and has been proved at Kaasi Shirin, surface indications of petroleum which are very highly thought of have also been observed at White Oil Springs, Kishm, Bakhtiari, Ahmad, Budan, Kuch Champa, and other places. The present production of the company is obtained entirely from the Maidan-i-Naphtun area where 36 wells have been drilled, it lies 140 miles N.E. of Muhammarah which is at the junction of the Shatt al Arab and Karun rivers. The oil is conveyed 100 miles by pipe line to the refinery at Abadan while materials have to be transported to the field by river and across a difficult country by mules. The workings are entirely under the charge of British subjects, the skilled labour is mainly recruited from India and the unskilled labourers are largely Persians, no difficulty having been experienced in securing an adequate supply. The Bakhtiari Khans police the field works and upper sections of the pipe line and an agreement has been made with the Sheikh of Muhammarah for the protection of the refinery and the lower section.

The Contract.—Under the agreement the Government are to subscribe for £2,000,000 in ordinary shares of the company, £1,000 in

preference shares and 2,199,000 in debentures which will bring the aggregate capital in shares and debentures to £4,799,000. The existing ordinary shares are £1,000,000 and preference 999,000 so that under the new arrangement the Government will hold the preponderating interest in the share capital. The debentures already existing amount to £800,000. The six per cent preference shares which participate to the extent of 2 per cent in dividends after payment of 6 per cent on the ordinary rank equally for voting purposes. The price at which the Admiralty will obtain the oil itself is kept a secret. The supply contract says the Admiralty Memorandum "will be regarded in the public interests as confidential. But it is stated that provision is made for the supply for a term of years on a favourable scale of price of a reasonable proportion of the total estimated annual requirements of the Admiralty on the present basis of policy of oil consumption and with due allowance for expansion. The contract is for oil only and the Admiralty will make its own arrangements for transport. The agreement was criticised in some quarters on the ground that it involved the British Government in indefinite commitments in Southern Persia and that it might be necessary to employ troops to defend Government property on foreign soil that of Persia. But on the whole the agreement was well received in the belief that it secured the British Navy an abundant supply of cheap oil fuel since the conclusion of the Agreement the storage capacity at Abadan has been very largely increased. The pipeline was cut by the Turks in 1915 but subsequently repaired.

Political Resident in the Persian Gulf
Sir LORRY COX KCSI KCIE CBI

Deputy Political Resident Major A. H. J. VOR
C.I.

Residency Surgeon at Bushire Major J. McHERSON

Consul at Kerman Mr. C. C. DUFF

Consul at Bunder Abbas and Assistant to the Resident Mr. WAT

Summary

From this brief summary of the conditions in the Persian Gulf, it will be seen that the British position is a nebulous one. We have stamped out piracy we have kept the peace we have sought no exclusive privileges the commerce of these waters is freely open to the ships of all nations. But this policy is in the main negative rather than positive. It is so barren of definite territorial achievements that it is singularly open to attack. It depends for

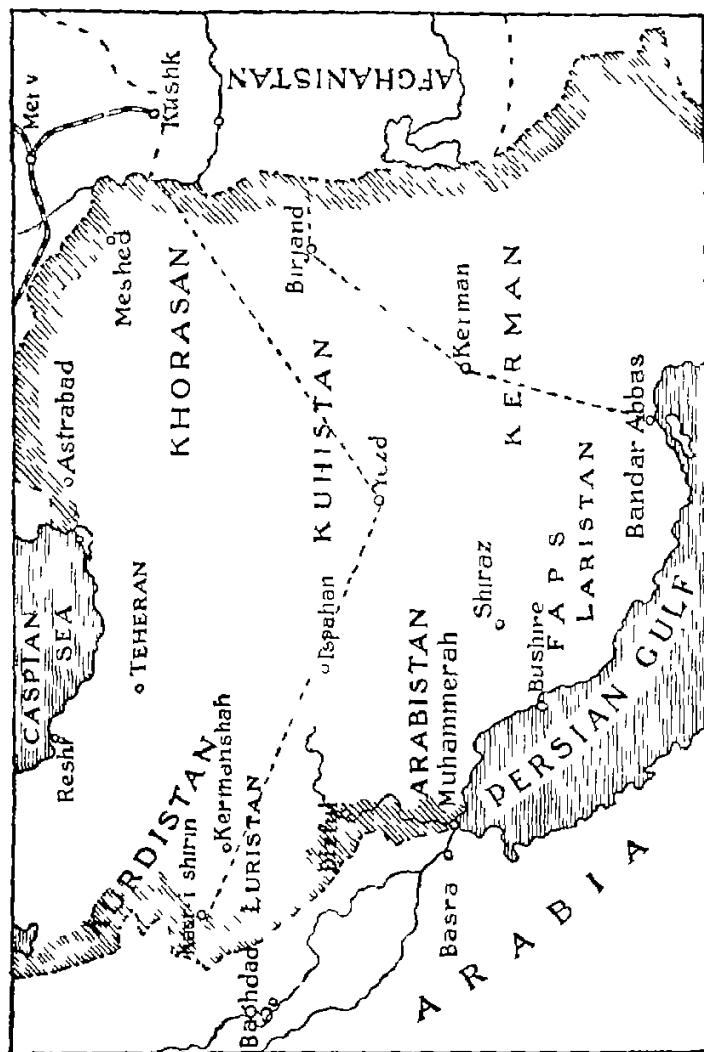
its permanent success on the maintenance of the *status quo* in a part of the world where conditions are fast changing nor was it in any way regularised by the Anglo-Russian agreement. On the contrary, by that instrument the British zone stopped short at Bunder Abbas the British sphere being restricted to the east of a line drawn from the Afghan frontier to Garik Biryand, Kerman and Bunder Abbas. All Persia between this line and the delimitation of the Russian zone by a line from Kasr i Shahr Isfahan Yazd and Bahh to the junction of the Persian Afghan and Russian frontiers—that is to say the whole of the Persian Gulf littoral—is in the neutral zone. The Agreement made no mention of the Persian Gulf but with the Convention a letter was published from Sir Edward Grey to the British Ambassador at Petrograd announcing that the Persian Gulf lay outside its scope but that the Russian Government had stated during the negotiations that it did not deny the special interests of Great Britain in the Gulf and it was intimated that Great Britain reasserted them.

At the present time of course the politics of the Persian Gulf and of Turkish Arabistan are in a state of uncertainty owing to the war. Before the war broke out active negotiations were conducted between the British, Turkish and German Governments with a view to the regularisation of the whole situation. On more than one occasion it was announced that they were on the verge of completion. The outcome of these negotiations was that the Baghdad railway should proceed as far as Basra as a purely German Turkish enterprise but that it should not proceed beyond Basra without the approval of the British Government. Great Britain was to receive two directors on the Board to guard against differentiation of rates. The Sheikh of Kuwait was to recognise the suzerainty of Turkey but he was not to be interfered with and Turkey was to accept the treaty of 1833. The Turkish post at Li Kater opposite to Bahrain was to be withdrawn but no violent acts or veiled hostility at Baghdad and Basra in September and October indicated that the attitude of Turkey in the great war could not be relied upon despite the repeated assurances of neutrality by the Grand Vizier. In October therefore a British Indian force was sent to the Gulf landing at Bahrain to be ready for all emergencies. It caused little surprise then when the official announcement was received that the Turkish warships in the Black Sea had committed acts of war by firing on Russian ships and bombarding Russian coast towns. The progress of this force is recorded in the opening pages of this section.

GUNRUNNING IN THE PERSIAN GULF

The question of gunrunning in the Persian Gulf is inseparable from the position on the North Western Frontier because the copious supplies of modern rifles with suitable ammunition from this source have transformed the military value of the tribesmen. Prior to 1897 this trade though considerable concerned Turkey and Persia rather than Great Britain. Arms were brought from Europe France

Belgium and England to Makat where they were discharged and freely distributed round the Persian and Arabian shores. The Frontier tribesman had to obtain his modern rifle by stealing even if it meant the murder of a sentry or else content himself with the jerrul or the rough country made rifle which is turned out in small numbers by the Kohat Pass Afridia. But after the rising of 1897 these rifles began to



filter into the North Western Frontier replacing the homely jezail. The Sultan of Maskat issued a proclamation empowering British and Foreign men of war to search for arms and the first consignment seized was in the shape of a Baluchistan. Still the traffic grew and in 1902 steps were taken to check it through the instrumentality of the Governor of Kerman. As his authority was incommensurate in 1907 the Government began to see that the traffic had assumed proportions which could not be neglected. In the year 1904-06 the value of the arms imported into Maskat reached a total of £270,000 and it is estimated that between 1905 and 1911 no fewer than 200,000 rifles and millions of rounds of ammunition reached the Indian borderland through Maskat. In 1909 a rigorous blockade was instituted in the Persian Gulf and the Gulf of Oman.

France and Maskat

The seat of trouble lay in the French commercial treaty with Maskat and in the refusal of the French Government to abrogate it except as the price of concessions in West Africa. Under this treaty arms were openly discharged at Maskat and dumped down in the town, under the eyes of the British Consular officer and men of war. They were then shipped in dhows across to the Mekran Coast by Arab dhows and landed on the Persian shore. These Persian Baluch sirdars received them and transported them to spots in the interior where the Afghan caravans were waiting. These caravans were for the most part manned by Ghilzais who transported the rifles right across Persia and Afghanistan to Kandahar whence they were distributed throughout the frontier. It is impossible to gauge the extent of the trade but thirty thousand rifles are reported to have been run to Kandahar in a single year and the supply became so plentiful that it was no longer worth while to steal rifles in India nor to manufacture them in the Kohat Pass.

Naval Blockade

Forced into indirect measures through the objection of France the Government instituted the naval blockade. For this purpose the ships of the East India Squadron were supplemented by a number of launches and boat cruisers and a complete system of wireless telegraphy established. The Oman and Pirate coasts were watched by cruisers and the

departure of dhows was communicated by wireless to Jack three communicated to the boat cruisers. These followed the dhows who slipped the cordon into shallow waters. Then at Kohat, the northern frontier of British Baluchistan a military post was established to intercept the caravans as they drew near Afghanistan.

Traffic Moribund.

The effect of these measures was so marked that it nearly precipitated a serious outbreak on the North West Frontier. The Pathans who returned from Mekran Coast about the beginning of June 1910 reported that they had been unable to obtain rifles because the British ships had put an end to the trade. At the same time cash in advance had been paid for these rifles and the money lay in the possession of the traders at Maskat. Between the rifles and the Mekran Coast where they could be landed was the seizure of the British cordon. Excitement was rife and only the exceptional tact of the British Officers prevented an *enroute*. Further preventive measures were taken to break up the power of Barkhat Khan Governor of Biyaban who had been the most indefatigable of the Laluch Sirdars engaged in the gunrunning traffic. A small force of Infantry was landed at Chagah on the Mekran Coast and marched to show themselves at Bunt. Then re-embarking it made a second landing at Sirik at the mouth of the Gax River and (recounting the gunrunners at the Pass of Pashak) inflicted a sharp reverse upon them. Another episode characteristic of this traffic occurred at Debal on the Persian Coast when a landing party from H. M. S. *Hyacinth* in December 1910 to search for rifles was actively opposed and five Baluchists were killed and nine wounded. Under the threat of bombardment the Shukh of Debal submitted to a heavy fine. In 1911 the traffic was brought under still closer control by an arrangement with the Sultan of Maskat by which all arms landed at that port are placed in a bonded warehouse and only issued on a certificate of destination.

The agreement was finally sealed when, in 1914 the French Government recognised the new Arms Traffic Regulations and abandoned the privileges and immunities secured by Treaty. Compensation was paid to the French merchants whose arms were virtually impounded. The traffic is now dead though the preventive measures are being only cautiously relaxed.

PERSIA

The concentration of public attention on the Persian Gulf has been allowed to obscure the frontier importance of Sistan. Yet it has been a serious preoccupation with the Government of India. Sistan lies midway north and south between the point where the frontiers of Russia, Persia and Afghanistan meet at Zulfikar and that where the frontiers of Persia and of our Indian Empire meet on the open sea at Gwattar. It marches on its eastern border with Afghanistan and with Baluchistan, it commands the valley of the Helmand and with it the road from Herat to Kandahar and its immense resources as a wheat-producing region have been only partly developed under Persian misrule. It offers to an aggressive

rival an admirable strategic base for future military operations. It is also midway athwart the track of the shortest line which could be built to connect the Trans Caspian Railway with the Indian Ocean and if and when the line from Askabad to Meshed were built the temptation to extend it through Sistan would be strong. Whilst the gaze of the British was concentrated on the North West Frontier and to possible lines of advance through Kandahar to Quetta, and through Kabul to Peshawar there can be little doubt that Russian attention was directed to a more leisurely movement through Sistan. If the day came when she moved her armies against India.

Anglo-Russian Agreement.

Whether with this purpose or not, Russian intrigue was particularly active in Seistan in the early years of the century. Having Russia and Khorassan, her agents moved into Seistan and through the agency of the Belgian Customs officials scientific missions and an irritating plague cordon sought to establish influence and to stifle the British trade which was gradually being built up by way of Nushki. These efforts died down before the presence of the McMahon mission which in pursuance of Treaty rights was demarcating the boundary between Persia and Afghanistan with special reference to the distribution of the waters of the Helmand. They finally ceased with the conclusion of the Anglo-Russian Agreement. Since then the international importance of Seistan has waned. Whether on account of the Agreement which bars the line of advance through Seistan or because of the discovery of a shorter route, we cannot determine but Russian activities in railway construction have been diverted to the Trans-Persian route which would take a direct line through Teheran from Bakou, and meet the Arabian Sea at Bandar Abbas or Chahbar.

The natural conditions which give to Seistan this strategic importance persist. Maritime British influence is being consolidated through the Seistan trade route. The distance from Quetta to the Seistan border at Killa Robot is 465 miles most of it dead level and it has now been provided with fortified posts, dak bungalows, wells and all facilities for caravan traffic. The railway has been pushed out from Spezand on the Bolan Railway to Nushki so as to provide a better starting point for the caravans than Quetta. The value of the trade carried over this route last year was Rs. 19 lakhs.

Text of the Agreement

This Agreement which aimed at an amicable settlement of all questions likely to disturb the friendly relations of the two countries in Asia generally and in Persia, Afghanistan and Tibet in particular was signed on August 31st 1907, and officially communicated to the Powers in St. Petersburg on September 24. After reciting the desire of both Governments to maintain the integrity of Persia and to allow all nations equal facilities for trade in that country, the Convention states that in certain parts, owing to their geographical proximity to their own territories, Great Britain and Russia have special interests. Accordingly (Art. I.) To the north of a line drawn from Kaer-i Shinn Isfahan Road and Khakhi to the junction of the Persian, Russian and Afghanistan frontiers, Great Britain agrees not to seek for itself or its own subjects or those of any other country any political or commercial concessions such as railway, banking, telegraph, roads, transport or insurance or to oppose the acquisition of such concessions by the Russian Government or its subjects. If Russia gives a similar undertaking concerning the region to the south of a line extending from the Afghan frontier to Gashk, Burjand, Kerman and Bandar Abbas, III. Russia and Great Britain agree not to oppose without previous agreement, the granting of concessions to subjects of either country in the regions situated between the lines above-

mentioned. All existing concessions in the regions above designated are maintained. IV. The arrangements by which certain Persian revenues were pledged for the payment of the loans contracted by the Shah's Government with the Persian Banque d'Escompte and de Prets and the Imperial Bank of Persia before the signing of the Convention are maintained. V. In the event of any irregularities in the redemption or service of these loans Russia may institute a control over the revenues situated within the zone defined by Article I and Great Britain may do the same in the zone defined by Article II. But before instituting such a control the two Governments agree to a friendly exchange of ideas with a view to determining its nature and avoiding any action in contravention of the principles of the Convention.

With the Convention a letter was published from Sir E. Grey to the British Ambassador at St. Petersburg announcing that the Persian Gulf lay outside its scope but that the Russian Government had stated during the negotiations that it did not deny the special interests of Great Britain in the Gulf and it was intimated that Great Britain asserted them.

Chaos in Persia

So far from improving the domestic situation in Persia the Convention precluded a condition of thinly disguised anarchy. There was little security for life or property outside the zone commanded by the Russian troops in the North and in 1913 the Central India Horse, a solitary Indian Regiment sent to Shiraz was withdrawn. A dismal picture of Persian disorder was drawn in the Persian Blue Book published in July 1913. Lord Curzon summarising it in a debate in the House of Lords on July 29 said:—The picture delineated in this Blue book of Southern Persia is a picture of a country in the throes of dissolution given up to rapine and brigandage where trade is at a standstill where armed bands rove about the country doing as they please where British officers are fired at and robbed and in one particular unfortunate case an officer was killed. A country where the central Government is impotent and local government ignored.

In Northern Persia—and I must discriminate between Northern and Southern Persia—the conditions are very different. I do not say there is no insecurity but life and property are relatively safe in Northern Persia and this is owing to the presence of an overwhelming force of Russian troops in that part of the country.

Lord Morley thus indicated the Government's policy. I will put that common policy in seven propositions:—(1) maintaining the spirit and the letter of the Anglo-Russian Convention; (2) maintaining the independence of Persia and avoidance of partition and an approach to partition economical, administrative, geographical, political; (3) while faithful to the stability of our present alliance and to our real engagements we are faithful also in an equal degree to the good of Persia; (4) to uphold some form of constitutional Government; (5) to lose no chance of easing the distracted situation in which the Persian Government now is, by counsel, attention and such assistance as from time to time we may

consider it prudent to give (6) to enable Persia by money or otherwise to restore order on the southern roads (7) to avoid entangling ourselves in a policy of adventure in Southern Persia. I am inclined to add an eighth proposition namely that we must beware of being forced into a position which would offend the opinion and sentiment of Mahomedans in India.

Throughout the year conditions in Persia have been extremely unsatisfactory. On the outbreak of the war the Persian Government assured the British Government of its neutrality and expressed the hope that the territory of Persia would not become the scene of hostilities. Nevertheless roving bands of German and Austrian arm'd with rifle and machine guns wandered through the country trying to stir up trouble and as was the case with Turkey provoke Persia to take hostile action against the Allies. As the first of this perilous activity the British Consul at Esfahan was fired at and slightly grazed by a bullet whilst his Indian orderly was killed. More serious trouble occurred in the South at Bushire. On July 12th the presence of hostile tribesmen in the vicinity of the town was reported at the Residency. Major Oliphant of the 90th Regiment and Captain Rankin Assistant Political Officer with a mixed patrol of infantry and sowars went out to reconnoitre. Whilst returning the patrol was ambushed and came under a hot fire from a well concealed enemy. Four British officers were killed with one sepoy and two were wounded. The tribesmen afterwards disappeared. In August the state of lawlessness brought about the tribesmen of the hinterland and the danger to the lives and property of British subjects in that region compelled the Government to assume temporary occupation of the port of Bushire. The troops engaged in this duty were attacked on the night of the 6th-9th & plundered by a body of tribesmen numbering some 600 led by two notorious local chieftains. Reserves were brought up and we drove the enemy at the point of the bayonet from the nullahs on the east of the island where they had collected. The cavalry then charged through the fugitives and the guns which had been brought up to the low cliffs at the edge of the island kept them under fire for two or three miles across the flat marshy plain lying between the island and the mainland. Our casualties were—Killed Major Pennington 12th Cavalry attached 10th Cavalry 2nd Lieutenant Thornton I A R. Wounded 18th Cavalry 2nd Lieutenant Robinson I A R. attached 98th Infantry Lieutenant Scudmore 11th Rajput Lieutenant Laville 11th Rajput and Lieutenant Staples 11th Rajput.

The Persian Government having taken steps to ensure the security of British interests and the

maintenance of order the British occupation by mutual arrangement between the two Governments terminated on October 16th. The new Persian Governor Darya Begi arrived in a British launch which had been sent to meet him at Shit and was received at Bushire by the British Military Governor the Civil Administrator and Senior Naval officers with their staffs who conducted him to the flagstaff where a guard of honour was drawn up. The Persian Governor warmly expressed his gratitude on behalf of his Government and himself for the reception which the British representatives had accorded to him.

Towards the close of the year matters were brought to a head. The British and Russian Ambassadors were received by the Shah who openly declared that he was a friend of the two countries. During the year he said the Germans had done their utmost to drive Persia into war with Russia. Prince Eyn ud Daule and Prince Firman Fima who are Euseophiles entered the Cabinet with German Austrian and Turkish Ministers left Persia. It was afterwards announced that a force of rebels under Turk and Germans entrenched in the mountainous region had been expelled near the Turkish frontier by Russians. Muhsin Solkhan a former Governor-General of South Persia the hot bed of anti English intrigues was recalled and Prince Nasrat ul Sultaneh an uncle of the Shah sent to succeed him with an adviser friendly to the Entente. Later an anti British affair was reported from Shiraz. On November 10th the British Consul the manager of the Imperial Bank of Persia and other male British objects were seized and sent southwards to tribal territory where they were detained but well treated. The British authorities were sent under escort to Bushire and there handed over to the British authorities unharmed. This outrage was perpetrated by the Swedish officer Zundamerlein defiance of the orders of the Persian Government who expressed their deep regret and promised reparation.

With a view to releasing funds for the efficient internal administration and observance of neutral obligations Persia arranged with Great Britain and Russia for a moratorium in respect of interest and amortization of their loans but the service of the British Pacific Loan of 1911 was not affected.

H. B. M. s. Consul General and Agent of the Government of India in Khuzestan—Lieut. Colonel T. W. Hale C. M. G.

H. B. M. s. Consul in Sudan and East—Major F. B. Pridcaux C. I. E.

Medical Officer and Vice Consul—Major D. Heron I. M. S.

THE INDEPENDENT TERRITORY

There yet remains a small part of British India where the King's writ does not run. Under what is called the Durand Agreement with the Amir of Afghanistan the boundary between India and Afghanistan was settled and it was delimited in 1903. But the Government of India have never occupied up to the border. Between the administrative territory and the Durand line there lies a belt of territory of varying widths extending from the Gomal Pass to the south to Kohat in the north, this is generically known as the Independent Territory. Its future is the key-note of the innumerable discussions of frontier policy for nearly half a century.

This is a country of deep valleys and secluded glens which nature has fenced in with almost inaccessible mountains. It is peopled with wild tribes of mysterious origin in whom Afghan, Tartar, Turkoman, Persian, Indian, Arab and Jewish intermingle. They have lived their own lives for centuries, with little intercourse even amongst themselves and as Sir Valentine Chirol truly said, the only bond that ever could unite them in common action was the bond of Islam. It is impossible to understand the Frontier problem unless two facts are steadily borne in mind. The strongest sentiment amongst these strange people is the desire to be left alone. They value their independence much more than their lives. The other factor is that the country does not suffer even in good years to maintain the population. They must find the means of subsistence outside either in trade by service in the Indian Army or in the Frontier Militia or else in the outfit which hill men all the world over have studied from time immemorial, the raling of the waulker and more peaceful population of the Plains.

Frontier Policy

The policy of the Government of India towards the Independent Territory has ebbed and flowed in a remarkable degree. It has fluctuated between the Forward School which would occupy the frontier up to the confines of Afghanistan and the School of Masterly Inactivity which would leave the tribesmen entirely to their own resources, punishing them only when they raided British territory. Behind both the policies lay the memory of a Russian invasion and that coloured our frontier policy until the Anglo-Russian Agreement. This indeed what was called Rite and Retire tactics in the half century which ended in 1897 there were nearly a score of punitive expeditions each one of which left behind a legacy of distrust and which brought no permanent improvement in its train. The fruit of the suspicion thus engendered was seen in 1897. Then the whole Frontier from the Malakand to the Gomal was ablaze. The extent of this rising and the magnitude of the military measures which were taken to meet it compelled a consideration of the whole position. The broad outlines of the new policy were laid down in a despatch from the Secretary of State for India which prescribed for the Government the limitation of your interference with the tribes so as to avoid the extension of administrative control over tribal

territory. It fell to Lord Curzon to give effect to this policy. The main foundations of his action were to exercise over the tribes the political influence requisite to secure our imperial interests to pay them subsidies for the performance of specific duties but to respect their tribal independence and leave them as far as possible, free to govern themselves according to their own traditions and to follow their own inherited habits of life without let or hindrance.

New Province

As a first step Lord Curzon took the control of the tribes under the direct supervision of the Government of India. Up to this point they had been in charge of the Government of the Punjab a province whose head is beset with many other concerns. Lord Curzon created in 1901 the North West Frontier Province and placed it in charge of a Chief Commissioner with an intimate frontier experience directly subordinate to the Government of India. This was a revival of a scheme prepared by Lord Lytton in 1877 and often considered afterwards but which had slipped for lack of driving power. Next Lord Curzon withdrew the regular troops so far as possible from the advanced posts and placed these fortresses in charge of tribal levies officered by a handful of British officers. The most successful of these is the Khyber Rifles which have steadily kept the peace of that historic Pass. At the same time the regular troops were cantoned in places whence they could quickly move to any danger point and these bases were connected with the Indian Railway system. In pursuance of this policy frontier railways were run out to Dargai and a narrow gauge line since converted to the broad gauge was constructed from Kushalgarh to Kohat at the entrance of the Kohat Pass and to Jalal at the mouth of the Kurram Valley. These railways are being completed by lines to Peshawar and Bannu. By this means the striking power of the regular forces was greatly increased. Nor was the policy of economic development neglected. The railways gave a powerful stimulus to trade and the Lower Swat Canal converted frugal tribesmen into successful agriculturists. This policy of economic development is receiving a great development through the completion of the Upper Swat Canal (in construction). Now it is completed there are other works awaiting attention.

Greater Peace

So far this policy has been completely justified by results. During Lord Curzon's Viceroyalty there was no frontier expedition. The recalcitrancy of the Mahsud Waziris necessitated punitive measures but they took the form of a blockade. Critics have declared that the blockade was scarcely distinguishable from an expedition but that is a secondary matter. It was not until 1908 that the peace of the border was directly disturbed and then the continued recalcitrancy of the Zakka Khel sept of the great Afridi tribe compelled the Government to take action. General Willcock moving swiftly down the Chitra Pass,

and Colonel Ross-Keppel taking the Khyber Ridge down the Basar Valley inflicted such condign punishment on them that they were glad to accept terms of peace negotiated by the main Afridi tribe. A month later action was necessary against the Mohmands. In this case the rebellious tribesmen were actively supported by Afghan levies, assembled and fitted out in Afghan territory at Lalpura. Two brigades entered their country and defeated them. There was a diversion when lashkars numbering nearly twenty thousand moved up from Afghanistan and threatened the British post of Landi Kotal in the Khyber. They too were driven back into Afghan territory and the trouble was at an end. The Amir who had been strangely quiescent asserted his authority and the irregular warfare ceased from Afghan territory ceased.

Policy Justified.

These expeditions have been seized upon by critics to condemn the present policy. They justify it. Thanks to the confidence engendered by ten years of non-aggression, the disturbed area was localised. The Khyber was kept open the Afridis lent their aid in concluding peace. For these reasons, when the Government of India proposed the occupation of further strategic points in order to control the Zakka Khels, the Secretary of State wisely imposed his embargo. The strength of the position was still further demonstrated when in 1910 the tribesmen suffered heavy losses in consequence of measures to suppress the arms traffic (e.g. Gun running). The frontier is always in a state of suppressed ferment. No one knows what will happen to-morrow. But the tribesmen feeling confident in the knowledge that no attack on their independence is contemplated and growing richer in consequence of the development of trade and agriculture are more easily handled. With the removal of the Russian menace or rather its transference to Persia the importance of the North-West Frontier has tended to subside. There are still heard mutterings of the necessity for a reversion to the forward policy and for the occupation of the Independent Territory right up to the Durand line. But they are not regarded seriously. The tribesmen are so saturated with rifles and ammunition as the result of importations from the Persian Gulf that the task would be long and costly. When it was achieved the frontier problem would only have shifted. Instead of a frontier against the Independent tribesmen India would have a frontier against Afghans and the problem would still be present only in an aggravated form.

The history of the Independent Territory during the year was one of unrest though this was local and sporadic and did not take the form of a concerted disturbance such as that which embarrassed the Government of India in 1897. The Viceroy in summarising the position in the speech which closed the session

of the Imperial Legislative Council in October said — On the Frontier I regret to say that our posts have been repeatedly attacked by large bodies of ignorant and fanatical tribesmen from tribal territory but in each case they have been successfully driven back with considerable losses and at the cost of a few lives among our own soldiers. I always regret such useless waste of the precious life of our soldiers at the hands of these hordes of barbarous tribesmen. Nothing could have been more staunch and loyal than the attitude of our own tribesmen living within our borders. The Amir of Afghanistan has from the beginning of the war observed an attitude of strict neutrality and I have every reason to believe that it will be rigidly maintained.

The more important of these raids are narrated in The Chronicle of the Year (q.v.)—On August 17th hostile bodies of Bunerwals occupied the low hills at the mouth of the Ambeyla Pass and in the afternoon four thousand tribesmen advanced towards the vicinity of the British Camp. An artillery and infantry attack was made upon them and they were completely routed and driven back to the hills. On August 26-28 and 29th large bodies of Swatis were beaten off with heavy losses on the Buner border and the tribesmen were driven out of Kak Fort which was destroyed. On September 6 a gathering of Mohmand lashkars numbering about ten thousand men was reported in the lower Gandab Valley. They were attacked near Hafiz Kor and driven off with heavy losses.

As for the nomenclature of the Frontier tribes the term Pathan is not racial. It is used to denote status and is generally used of the Frontier tribes and their connections. Furthest to the South on the borders between the North West Frontier Province and Baluchistan are found the Shikaris who are an Afghan people. Waziristan is inhabited by the Waziris who have two main branches the Mahsud Waziris found in Southern Waziristan and the Darwesh Khel Waziris mostly in Northern Waziristan. The latter have two main sections the Utmanzai and the Ahmadzai and these again are subdivided into numerous clans. In the Kurram the Turis (who unlike their neighbours are Shi'ah) form the strongest element. In the Khyber region the main tribes are the Orakzai and the Afridis both found in the mountainous country south of the Khyber Pass commonly called Tirah both are extensively subdivided the strongest sections of the Orakzai being the Lashkatzai and the Masozai and of the Afridis the Malik Bim Khel, the Zakka Khel the Kambar Khel and the Kuki Khel. Between the Khyber Pass and the Kabul River are the Mollazoris and further south the Mohmands and the Utman Khel. Beyond these are the Yusufzai, who form the bulk of the inhabitants of Swat and Dir. Chitral is inhabited by races whose origin is obscure.

AFGHANISTAN

The relations of Afghanistan with the Indian Empire are dominated by one main consideration—the relation of Afghanistan to a Russian invasion of India. All other considerations are of secondary importance. For nearly

three-quarters of a century the attitude of Great Britain toward successive Amirs has been dictated by this one factor. It was in order to prevent Afghanistan from coming under the influence of Russia that the first Afghan

War of 1838 was fought—the most melancholy episode in Indian frontier history. It was because a Russian envoy was received at Kabul whilst the British representative was turned back at Ali Masjid that the Afghan War of 1838 was waged. Since then the whole end of British policy toward Afghanistan has been to build up a strong independent State friendly to Britain which would act as a buffer against Russia and so to order our frontier policy that we should be in a position to move large forces up, if necessary, to support the Afghans in resisting aggression.

Gates to India

A knowledge of the trans frontier geography of India brought home to her administrators the conviction that there were only two main gates to India—through Afghanistan the historic route to India along which successive invasions have poured and by way of Seistan it has been the purpose of British policy to close them and of Russia to endeavour to keep them at any rate half open. To this end having pushed her trans-Persian railway to Samarkand Russia thrust a military line from Merv to the Kushlihsay Post where railway material is collected for its immediate prolongation to Herat. Later she connected the trans-Siberian railway with the trans-Caucasian system, by the Orenburg-Tashkent line thus bringing Central Asia into direct touch with her European magazines. She was until recently credited with the determination to build the Termez railway which would menace north-east Afghanistan just as the Kushlihsay line does north-west Afghanistan. Nor has Great Britain been idle. A great military station has been created at Quetta. This is connected with the Indian railway system by lines of railway which climb to the Quetta Plateau by the Bolan Pass and through the Chappar Bitt, lines which rank amongst the most picturesque and daring in the world. From Quetta the line has been carried by the Khyber tunnel through the Khyber Amran Range until it leads out to the Afghan Border at New Chaman where it opens on the route to Kandahar. The material is stocked at New Chaman which would enable the line to be carried to Kandahar in sixty days. In view of the same menace the whole of Baluchistan has been brought under British control. Quetta is now one of the great strategical positions of the world and nothing has been left undone which modern military science can achieve to add to its natural strength. In the opinion of many military authorities it firmly closes the western gate to India, either by way of Kandahar or the direct route through Seistan.

Further east the Indian railway system has been carried to Jamrud at the entrance to the Khyber Pass. A first class military road sometimes double, sometimes treble threads the Pass to our advanced post at Landi Kotal and then descends until it meets the Afghan frontier at Tor Khum. Later a commencement was made with the Lol Shitman Railway which, starting from Peshawar was designed to penetrate the Mullagori country and provide an alternative advance to the Khyber for the movement of British troops for the defence of Kabul. For unexplained reasons,

this line was suddenly stopped and is now thrust in the air. In this was the two Powers prepared for the great conflict which was to be fought on the Kandahar-Ghazni-Kabul line.

Relations with India.

Between the advanced posts on either side stands the Kingdom of Afghanistan. The end of British policy has been to make it strong and friendly. In the first particular it has largely succeeded. When the late Abdurrahman was invited to ascend the throne as the only means of escape from the tangle of 1879 none realised his great qualities. Previously the Amir of Afghanistan had been the chief of a confederacy of clans. Abdurrahman made himself master in his own kingdom. By means into which it is not well closely to enter he beat down opposition until none dared lift a hand against him. Added by a British subsidy of twelve lakhs of rupees a year increased to eighteen by the Durand Agreement of 1883, he established a strong standing army and set up arsenals under foreign supervision to furnish it with arms and ammunition. Step by step his position was regularised. The Anglo-Russian Boundary Commission—which nearly precipitated war over the Pendjeh episode in 1885—determined the northern boundaries. The Pamir Agreement delimited the borders amid those snowy heights. The Durand Agreement settled the border on the British side. Finally the McMahon award closed the old feud with Persia over the distribution of the waters of the Helmand in Seistan. It was estimated by competent authorities that about the time of Abdurrahman's death Afghanistan was in a position to place in the field, in the event of war, one hundred thousand well armed regular and irregular troops, together with two hundred thousand tribal levies and to leave fifty thousand regular and irregulars and a hundred thousand levies to maintain order in Kabul and the provinces. But if Afghanistan were made strong it was not made friendly. Abdurrahman Khan distrusted British policy up to the day of his death. All that can be said is that he distrusted it less than he distrusted Russia and if the occasion had arisen for him to make a choice he would have opposed a Russian advance with all the force at his disposal. He closed his country absolutely against all foreigners except those who were necessary for the supervision of his arsenals and factories. He refused to accept a British Resident, on the ground that he could not protect him, and British affairs have been entrusted to an Indian agent who is in a most equivocal position. At the same time he repeatedly pressed for the right to pass by the Government of India and to establish his own representative at the Court of St. James.

Position To-day

It used to be one of the commonplaces of Indian discussion that the system which Abdurrahman Khan had set up would perish with him, because none other was capable of maintaining it. Abdurrahman Khan died in 1901. His favourite son, Habibullah, who had been gradually initiated into the administration, peacefully succeeded him, and has since peace-

fully retained his seat on the throne. He concluded in 1905 the Durand Treaty, by which he accepted the same obligations on the same terms as his father. He visited India in 1907 and apparently both enjoyed and profited by his experiences. Since then the purdah which screens Afghanistan has been lifted so little that there is no definite knowledge of what has passed behind it. It would however be impossible to describe the attitude of the Amir as friendly. It is said that the honours bestowed upon him in India, especially the conferring of a Royal Title increased the megalomania from which all Afghans suffer. He bitterly resented the conclusion of the Anglo-Russian Agreement without any prior reference to himself, and has never given his adhesion to it over. His attitude toward the Frontier disturbances of 1907-08 was peculiar. There is no doubt that the Zakhra Khel rising was stirred by refugees in Kabul. Thousands of Afghans, equipped in Afghan territory participated in the Mohmand campaign. The great lashkar which attacked Landi Kotal was entirely composed of Afghans. The most favourable interpretation placed on his conduct is that during his absence in India, followed by a long tour in the northern provinces the situation in Afghanistan had got out of hand, and the Amir let it take its course until failure occurred, when he stepped in and assumed control of affairs. For the rest, the position of the ruler of Afghanistan is not an enviable one. His brother Nasrullah Khan a noted Angkophobe and reactionary is the Commander-in-Chief of the Army and the head of the orthodox party. The administration of the country is extremely lax. Experiences in Khost indicate that the strength of the central power has been exaggerated. In 1912, the Mangala of Khost revolted against an unpopular governor and besieged him in his own stronghold. There was much talk of the prompt and severe punishment of the rebels, but the troops never reached the valley and the rebels were bought off by the dismissal of the unpopular governor.

Anglo-Russian Agreement.

Inasmuch as Afghan politics, in their relation to Great Britain, were determined by the Russian menace, they have coincided with the conclusion of the Anglo-Russian Agreement. The part of the Anglo-Russian Convention relating to Afghanistan is as follows: I. The British Government disclaims any intention of changing the political position in Afghanistan and undertakes neither to take measures in Afghanistan nor to encourage Afghanistan to take measures threatening Russia. The Russian Government recognises Afghanistan as outside the Russian sphere of influence and agrees to act in all political relations with Afghanistan through the British Government and it also undertakes to send no agents to Afghanistan. II. Great Britain adheres to the provisions of the treaty of Kabul of March 21 1905 and undertakes not to annex or to occupy contrary to the said treaty, any part of Afghanistan or to intervene in the internal administration. The reservation is made that the Amir shall fulfil the engagements contracted by him in the aforementioned treaty. III. Russian and Afghan officials especially appointed for that purpose on the frontier or in the frontier provinces may enter into direct relations in order to settle local questions of a non-political character. IV. Russia and Great Britain declare that they recognise the principle of equality of treatment for commerce and agree that all facilities acquired already or in the future for British and Anglo-Indian commerce and merchants shall be equally applied to Russian Commerce and merchants. V. These arrangements are not to come into force until Great Britain has notified to Russia the Amir's assent to them.

The Amir has never given his adhesion to the Agreement, but Great Britain and Russia have agreed to regard the Agreement as if the Amir had accepted it.

On the outbreak of the war His Majesty the Amir declared his complete neutrality and this policy was pursued during the year with complete and unswerving faithfulness.

TIBET

Recent British policy in Tibet is really another phase in the long-drawn-out duel between Great Britain and Russia in Central Asia. The earliest efforts to establish communication with that country were not, of course inspired by this apprehension. When in 1774 Warren Hastings despatched Bogle on a mission to the Tashi Lama of Shigatse,—the spiritual equal, if not superior of the Dalai Lama of Lhasa—his desire was to establish facilities for trade to open up friendly relations with a Power which was giving us trouble on the frontier and gradually to pave the way to a good understanding between the two countries. After Warren Hastings' departure from India the subject slept, and the last Englishman to visit Lhasa, until the Younghusband Expedition of 1904, was the unofficial Manning. In 1886, under the inspiration of Colonel Macaulay of the Bengal Civil Service, a further attempt was made to get into touch with the Tibetans, but it was abandoned in deference to the opposition of the Chinese, whose susceptibility over

Tibet was recognised, and to whose views until the war with Japan British statesmen were inclined to pay excessive deference. But the position on the Tibetan frontier continued to be most unsatisfactory. The Tibetans were aggressive and obstructive and with a view to putting an end to an intolerable situation a Convention was negotiated between Great Britain and China in 1890. This laid down the boundary between Sikkim and Tibet, it admitted a British protectorate over Sikkim, and paved the way for arrangements for the conduct of trade across the Sikkim-Tibet frontier. These supplementary arrangements provided for the opening of a trade mart at Yatung, on the Tibetan side of the frontier to which British subjects should have the right of free access and where there should be no restrictions on trade. The agreement proved useless in practice because the Tibetans refused to recognise it and despite their established suzerainty, the Chinese Government were unable to secure respect for it.

Russian Intervention.

This was the position when in 1899 Lord Curzon Viceroy of India, endeavoured to get into direct touch with the Tibetan authorities. Three letters which he addressed to the Dalai Lama were returned unopened at a time when the Dalai Lama was in direct intercourse with the Tsar of Russia. His embassy was a Siberian Dorjoff, who had established a remarkable ascendancy in the councils of the Dalai Lama. After a few years residence at Lhasa Dorjoff went to Russia on a confidential mission in 1899. At the end of 1900 he returned to Russia at the head of a Tibetan mission of which the head was officially described in Russia as the senior Tsanpo Khomba attached to the Dalai Lama of Tibet. The mission arrived at Odessa in October 1900 and was received in audience by the Tsar at Livadia. Dorjoff returned to Lhasa to report progress, and in 1901 was at St. Petersburg with a Tibetan mission where as bearers of an autograph letter from the Dalai Lama they were received by the Tsar at Peterhoff. They were escorted home through Central Asia by a Russian force to which several Intelligence Officers were attached. At the time it was rumoured that Dorjoff had, on behalf of the Dalai Lama, concluded a treaty with Russia which virtually placed Tibet under the protectorate of Russia. This rumour was afterwards officially contradicted by the Russian Government.

The Expedition of 1904.

In view of these conditions the Government of India treating the idea of Chinese suzerainty over Tibet as a constitutional fiction proposed in 1903 to despatch a mission with an armed escort to Lhasa to discuss the outstanding questions with the Tibetan authorities on the spot. To this the Home Government could not assent, but agreed in conjunction with the Chinese Government, to a joint meeting at Khamba Jong on the Tibetan side of the frontier. Sir Francis Younghusband was the British representative but after months of delay it was ascertained that the Tibetans had no intention of committing themselves. It was therefore agreed that the mission with a strong escort, should move to Gyantse. On the way the Tibetans developed marked hostility and there was fighting at Tuna, and several sharp encounters in and around Gyantse. It was therefore decided that the mission should advance to Lhasa, and on August 3rd 1904 Lhasa was reached. There Sir Francis Younghusband negotiated a convention by which the Tibetans agreed to respect the Chinese Convention of 1890 to open trade marts at Gyantse, Garok and Yatung to pay an indemnity of £500,000 (seventy five lakhs of rupees) the British to remain in occupation of the Chumbi Valley until this indemnity was paid off at the rate of a lakh of rupees a year. In a separate instrument the Tibetans agreed that the British Trade Agent at Gyantse should have the right to proceed to Lhasa to discuss commercial questions if necessary.

Home Government Intervention.

For reasons which were not apparent at the time, but which have since been made clearer the Home Government were unable to accept

the full terms of this agreement. The indemnity was reduced from seventy five lakhs of rupees to twenty-five lakhs to be paid off in three years and the occupation of the Chumbi Valley was reduced to that period. The right to despatch the British Trade Agent to Lhasa was withdrawn. Two years later (June 1908) a Convention was concluded between Great Britain and China regulating the position in Tibet. Under this Convention Great Britain agreed neither to annex Tibetan territory nor to interfere in the internal administration of Tibet. China undertook not to permit any other foreign State to interfere with the territory or internal administration of Tibet. Great Britain was empowered to lay down telegraph lines to connect the trade stations with India, and it was provided that the provisions of the Convention of 1890 and the Trade Regulations of 1893 remained in force. The Chinese Government paid the indemnity in three years and the Chumbi Valley was evacuated. The only direct result of the Mission was the opening of the three trade marts and the establishment of a British Trade Agent at Gyantse.

The Anglo-Russian Agreement.

The reason underlying the action of the British Government in modifying, in such material particulars, the Convention of Lhasa was apparent later. The Anglo-Russian Agreement was in process of negotiation and under that Agreement Great Britain was pledging herself not to annex any portion of Tibetan territory nor to send a representative to Lhasa. A seventy five year occupation of the Chumbi Valley would have been indistinguishable from annexation. The portions of the Anglo-Russian Agreement which relate to Tibet are as follows:

Article I—The two High Contracting Parties engage to respect the territorial integrity of Tibet and to abstain from all interference in its internal administration.

Article II—In accordance with the admitted principle of the suzerainty of China over Tibet Great Britain and Russia engage not to enter into negotiations with Tibet, except through the intermediary of the Chinese Government. This engagement does not exclude the direct relations between the British Commercial Agents and the Tibetan authorities provided for in Article V of the Convention between Great Britain and Tibet of the 7th September 1904 and confirmed by the Convention between Great Britain and China of the 27th April 1906 nor does it modify the engagements entered into by Great Britain and China in Article I of the said Convention of 1906.

It is clearly understood that Buddhists, subjects of Great Britain or of Russia, may enter into direct relations on strictly religious matters with the Dalai Lama, and the other representatives of Buddhism in Tibet, the Governments of Great Britain and Russia engage, as far as they are concerned, not to allow those relations to infringe the stipulations of the present arrangement.

Article III—The British and Russian Governments, respectively engage not to send Representatives to Lhasa.

Article IV—The two High Contracting Parties engage neither to seek nor to obtain, whether for themselves or for their subjects any concessions for railways, roads, telegraphs and mines, or other rights in Tibet.

Article V—The two Governments agree that no part of the revenues of Tibet whether in kind or in cash shall be pledged or assigned to Great Britain or Russia or to any of their subjects.

Annexed to the Agreement was a re-affirmation of the declaration for the evacuation of the Chumbi Valley after the payment of three annual instalments of the indemnity provided that the trade marts had been effectively opened for three years and that the Tibetans had complied in all respects with the terms of the Treaty.

Chinese Action.

The sequel to the Anglo-Russian Agreement was dramatic although it ought not to have been unexpected. On the approach of the Younghusband Mission the Dalai Lama fled to Urga, the sacred city of the Buddhists in Mongolia. He left the internal government of Tibet in confusion and one of Sir Francis Younghusband's great difficulties was to find Tibetan officials who would undertake the responsibility of signing the Treaty. Now the suzerainty of China over Tibet had been explicitly reaffirmed. It was asserted that she would be held responsible for the foreign relations of Tibet. In the past this suzerainty having been a constitutional fiction. It was inevitable that China should take steps to see that she had the power to make her will respected at Lhasa. To this end she proceeded to convert Tibet from a vassal state into a province of China. In 1908 Chao Erh-feng, acting Viceroy in the neighbouring province of Szechuen was appointed Resident in Tibet. He proceeded gradually to establish his authority marching through eastern Tibet and treating the people with great severity. Meantime the Dalai Lama, finding his presence at Urga, the seat of another Buddhist Pontiff Irknoome, had taken refuge in Si-ning. Thence he proceeded to Peking where he arrived in 1908 was received by the Court and despatched to resume his duties at Lhasa. Moving by disguised stages he arrived there at Christmas 1909. But it was soon apparent that the ideas of the Dalai Lama and of the Chinese Government had little in common. The Dalai Lama expected to resume the temporal and spiritual despotism which he had exercised prior to 1904. The Chinese intended to deprive him of all temporal power and preserve him as a spiritual pope. The Tibetans had already been exasperated by the pressure of the Chinese soldiery. The report that a strong Chinese force was moving on Lhasa so alarmed the Dalai Lama that he fled from Lhasa, and by the irony of fate sought a refuge in India. He was chased to the frontier by Chinese troops and took up his abode in Darjeeling whilst Chinese troops overran Tibet.

Later Stages.

The British Government, acting on the representations of the Government of India, made strong protests to China against this action. They pointed out that Great Britain,

while disclaiming any desire to interfere with the internal administration of Tibet, could not be indifferent to disturbances in the peace of a country which was a neighbour, on intimate terms with other neighbouring States on our frontier especially with Nepal, and pressed that an effective Tibetan Government be maintained. The attitude of the Chinese Government was that no more troops had been sent to Tibet than were necessary for the preservation of order that China had no intention of converting Tibet into a province, but that being responsible for the good conduct of Tibet, she must be in a position to see that her wishes were respected by the Tibetans. Finally the Chinese remarked that the Dalai Lama was such an impossible person that they had been compelled again to depose him. Here the matter might have rested but for the revolution in China. That revolution broke out in Szechuen and one of the first victims was Chao Erh-feng. Cut off from all support from China, surrounded by a hostile and infuriated populace the Chinese troops in Tibet were in a hopeless case they surrendered, and sought escape not through China but through India, by way of Darjeeling and Calcutta. The Dalai Lama returned to Lhasa and in 1918 in the House of Lords on July 28 Lord Morley stated the policy of the British Government in relation to these changes. He said the declaration of the President of the Chinese Republic saying that Tibet came within the sphere of Chinese internal administration and that Tibet was to be regarded as on an equal footing with other provinces of China was met by a very vigorous protest from the British Government. The Chinese Government subsequently accepted the principle that China is to have no right of active intervention in the internal administration of Tibet and agreed to the constitution of a conference to discuss the relation of the three countries. This Convention met at Simla when Sir Henry McMahon Foreign Secretary to the Government of India, Mr. Ivan Chen representing China and Mr. Long Chen Shatra, Prime Minister to the Dalai Lama, thrashed out these issues. Whilst no official pronouncement has been made on the subject it is understood that a Convention was initiated in June which recognised the complete autonomy of Tibet proper with the right of China to maintain a Resident at Lhasa with a suitable guard. A semi-autonomous zone was to be constituted in Eastern Tibet in which the Chinese position was to be relatively much stronger. But this Convention, it is understood has not been ratified by the Chinese Government, owing to the difficulty of dealing Outer and Inner Tibet.

Political Importance of Tibet.

The political importance of Tibet in relation to India has of necessity been changed by the Anglo-Russian Agreement. So long as that instrument is in force it tends to decline. But no treaties are everlasting. The question has been admirably summed up by Sir Valentine Chirol (*The Middle Eastern Question*) written before the Agreement was reached.

What it would be impossible to view without some concern "he wrote "would be the ascendancy of a foreign and possibly hostile power

at Lhasa, controlling the policy of a great politico-religious organisation whose influence can and does make itself appreciably felt all along the north-eastern borderland of India. Lhasa is the stronghold of Lamaistic Buddhism, a debased form of Buddhism largely overgrown with tantric philosophy—Lhasa is in fact the Rome of Central Asian Buddhism and the many-storied Po-ta is on the hill to the west of the city is its Vatican whence its influence radiates throughout innumerable lamaseries or Buddhist monasteries not only into Turkestan and Mongolia and Western China, but across the Himalayas into the frontier States of our Indian Empire. Corrupt and degraded as it is it is still unquestionably a power and just because

it is corrupt and degraded it might lend itself more readily to become for a consideration the tool of Russian ambitions. Tibet as a Russian dependency would, at any rate no longer be a *quantité négligeable*, and our north-eastern frontier naturally formidable as it is, would require to be watched, just as every civilised country has to watch its frontiers, whatever they may be where they march with a powerful neighbour, and most of all in India, where our frontier is fringed with semi-independent Native States, over which our authority is conditioned mainly on the hitherto univalued prestige of our Imperial power in Asia.

British Trade Agent, Yalung.—D. Macdonald.
British Trade Agent, Gyantse.—Vacant

THE NORTH EASTERN FRONTIER.

The position on the northern frontier has been considered as if the British line were contiguous with that of Tibet. This is not so. The real frontier States are Kashmir, Nepal, Sikkim and Bhutan. From Chitral to Gilgit, now the northernmost posts of the Indian Government to Assam with the exception of the small wedge between Kashmir and Nepal, where the British district of Kumaon is thrust right up to the confines of Tibet, for a distance of nearly fifteen hundred miles there is a narrow strip of native territory between British India and the true frontier. The first of these frontier States is Kashmir. The characteristics of this State are considered under Native States (p. 7). It is almost the only important Native State in India with frontier responsibilities and it worthily discharges them through the agency of its efficient Imperial Service troops—four regiments of infantry and two Mountain Batteries, composed mainly of the Rajput Dogras, who make excellent fighting material. One of the most important trade routes with Tibet passes through Kashmir—that through Ladak. Then we come to the long narrow strip of Nepal. This Gurkha State stands in special relations with the British Government. It is for all practical purposes independent and the British resident at Kathmandu exercises no influence on the internal administration. The governing machine in Nepal is also peculiar. The Maharaja Dhiraj who comes from the Sisodia Rajput clan the bluest blood in India takes no part in the administration. All power vests in the Prime Minister who occupies a place equivalent to that of the Mayors of the Palace or the Shoguns of Japan. The present Prime Minister Sir Chandra Shamber has visited England and has given conspicuous evidence of his attachment to the British Government. Nepal is the main Indian outpost against Tibet or against Chinese aggression through Tibet. The friction between the Chinese and the Nepalese used to be frequent, and in the eighteenth century the Chinese marched an army to the confines of Kathmandu—one of the most remarkable military achievements in the history of Asia. Under the firm rule of the present Prime Minister Nepal has been largely free from internal disturbance, and has been raised to a strong bulwark of India. Nepal is the recruiting ground for the Gurkha Infantry who form such a splendid part of the fighting

arm of the Indian Empire. Beyond Nepal are the smaller States of BHUTAN and SIKKIM whose rulers are Mongolian by extraction and Buddhists by religion. In view of Chinese aggressions in Tibet, the Government of India in 1910 strengthened their relations with Bhutan by increasing their subsidy from fifty thousand to a lakh of rupees a year and taking a guarantee that Bhutan would be guided by them in its foreign relations. Afterwards China had officially notified that Great Britain would protect the rights and interests of these States.

Assam and Burma

We then come to the Assam border tribes—the Daffas, the Ahirs, the Ahoms and the Mishmis. Excepting the Ahoms none of these tribes have recently given trouble. The murder of Mr. Williamson and Dr. Gregerson by the Mityung Ahoms in 1911 made necessary an expedition to the Dihang valley of the Abor country on the N. E. frontier. A force of 2,500 and about 400 military police was employed from October 1911 to April 1912 in subduing the tribe. After two or three small actions the murderers were delivered up. The cost of the expedition was Rs. 21,60,000. At the same time friendly missions were sent to the Mishmi and Miri countries. Close contact with these forest-dwelling and leech-infested hills has not encouraged any desire to establish more intimate relations with them. The area occupied by the Nagasares runs northwards from Manipur. The Nagasares is a Tibeto-Burman people, devoted to the practice of head hunting, which is still vigorously prosecuted by the independent tribes. The Chin Hills is a tract of mountainous country to the south of Manipur. The corner of India from the Assam boundary to the northern boundary of the Shan States is for the most part included in the Myitkyina and Bhamo districts of Burma. Over the greater part of this area, a labyrinth of hills in the north, no direct administrative control is at present exercised. It is peopled by the Shan and the Kachins. Civilization is said to be progressing and steps have been taken to prevent encroachments from the Chinese side. There is a considerable trade with China through Bhamo. On the Eastern frontier of Burma are the Shan States, with an area of fifty thousand square miles and a population of 1,400,000. These States are still administered by the

Barthwas no hereditary office, subject to the guidance of Superintendents and Assistant Superintendents. The Northern Shan Rail way to Lashio, opened in 1903 was meant to be a stage in the construction of a direct railway link with China, but this idea has been put aside, for it is seen that there can never be a trade which would justify the heavy expen

diture. The Southern Shan States are being developed by railway connection. The five Karenni States lie on the frontier south of the Shan States. South of Karenni the frontier runs between Siam and the Tenasserim Division of Burma. The relations between the Indian Government and the progressive kingdom of Siam are excellent.

* PERSIAN DEBT TO BRITAIN

A Parliamentary Paper sets out the outstanding debt of the Persian Government to the British and Indian Governments, as follows

	£	s	d
Portion of Anglo-Indian Loan of 1903-4 (repayable by March, 1923)	£14,281	15	4
Anglo-Indian advance of February 1913	100,000	0	0
Anglo-Indian advance of Aug 1912, after defeat of gendarmerie in Fars	25,000	0	0
Anglo-Indian advance of Nov 1912, for use of Governor General of Fars	15,000	0	0

	£	s	d
Anglo-Indian advance of April, 1913 for general purposes of administration including £30,000 for such purposes in Fars and £10,000 for the Bushire Custom House	200,000	0	0
Anglo-Indian advance of May 1913 for gendarmerie purposes in Fars	100,000	0	0
Total	£754,281	15	4

The 1903-5 loan bears interest at 5 per cent., and all other advances bear interest at 7 per cent.

* By agreement with Great Britain and Russia these loans have been placed under a moratorium, in order to assist the Persian Government financially

Railways to India.

The prospect of linking Europe and Asia by a railway running eastwards through Asia Minor has fascinated men's minds for generations. The plans suggested have, owing to the British connection with India, always lain in the direction of lines approaching India. More than 40 years ago a Select Committee of the House of Commons sat for two years to consider the question of a Euphrates Valley railway. The Shah of Persia applied to the British Foreign Office for the investment of British capital in Persian railway construction many years before the end of the nineteenth century. A proposal was put forward in 1895 for a line of 1,000 miles from Cairo and Port Said to Koweit at the head of the Persian Gulf. While these projects were in the air German enterprise stepped in and made a small beginning by constructing the Anatolian railway system. Its lines start from Scutari, on the southern shore of the Bosphorus, opposite Constantinople, and serve the extreme western end of Asia Minor. And upon this foundation was based the Turkish concession to Germans to build the Baghdad Railway.

Meanwhile Russia was pushing her railways from various directions into the Central Asian territory running along the northern frontiers of Persia and Afghanistan to the borders of Chinese Turkestan. The advance of the Russian railroads was regarded with extreme suspicion in England as part of a scheme of adventure against India, and as the Russian lines crept southwards British Indian railways were thrust forward to the Indian north west frontier. As the two systems approached one another enthusiasts adumbrated plans for linking them together. M. de Lesseps, the creator of the Suez Canal, made a journey to Bombay to lay one before the Indian Government. He was proposing to start homewards through Afghanistan and Central Asia so that he might examine a route that way and via Orenburg to Moscow when the Afghan war broke out and ended his dream.

The construction of a Trans-Persian railway connecting India across Persia, with the Russian lines between the Black Sea and the Caspian Sea has come to the forefront since the conclusion of the Anglo-Russian agreement regarding Persia and simultaneously with this and the advance of the Baghdad railway old projects for British lines running inland into Persia from the Persian Gulf have been quickened.

The actual position in regard to these various undertakings up to the outbreak of the European war, and so far as can be ascertained since then, is as follows—

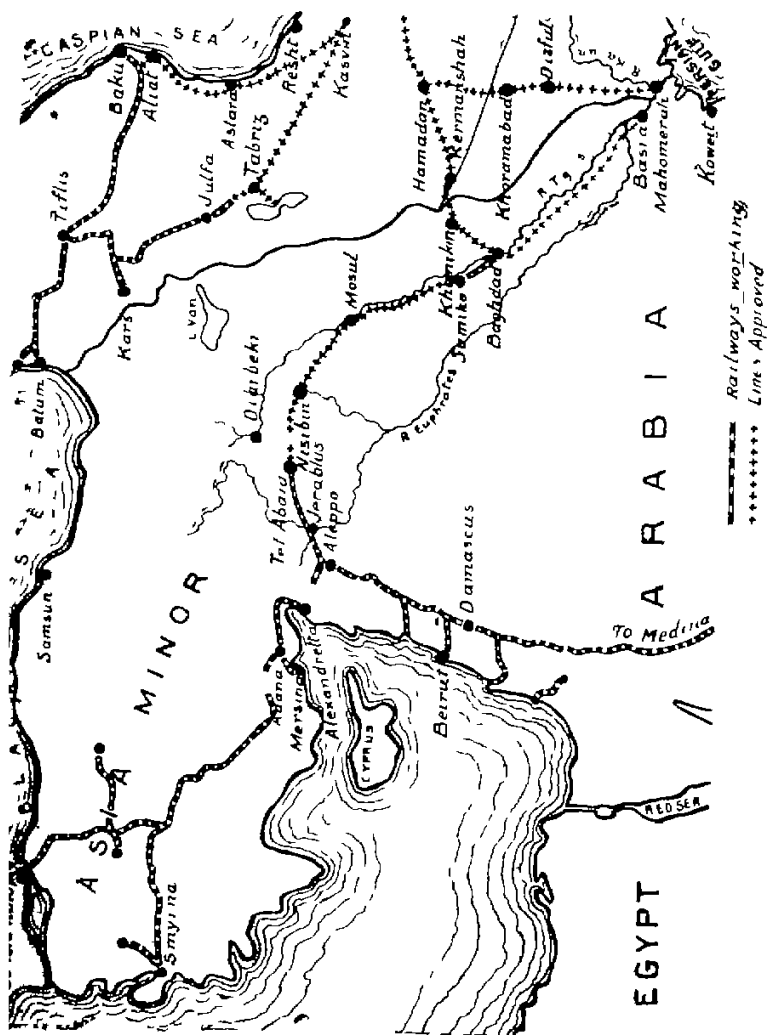
Baghdad Railway

The German group holding the Anatolian railway concession was granted, in 1902, a further concession for extending that system from Konia, then its southern terminus, through the Taurus range to the extreme eastern Mediterranean seaboard, and by way of Nisibin, Mosul and Baghdad to Basra. This concession was substituted for a line projected by a more northerly route through the pass of Diarbekir. Russia strongly objected to that route, on the ground that it would bring the line into the

Black Sea basin. When it was abandoned, a Russo-Turkish agreement was passed, reserving to Russia the sole right to construct railways in the northern part of Asia Minor and Russia has since then prepared a number of projects for that region branching out from Samzun, on the Black Sea. Russia has also prepared her Caucasian railways for possible extensions in the same region, pushing her lines towards Van and making an agreement with Persia, in February 1913 for a line to Lake Urumia.

The Anatolian railway company were apparently unable to handle their new concession and initiated fresh negotiations, which resulted in the Baghdad Railway convention of March, 1908. This caused much discussion in England, owing to the apparent intention of the Germans to encroach on the Persian Gulf. Attempts were made by the German group to secure the participation of France and Britain in the undertaking. They were successful in France, the Imperial Ottoman Bank group agreeing to take 30 per cent of the finance, without, however the countenance of the French Government. But in England, though Mr. Delbourc a Government was favourable, strong objection was taken to the constitution of the Board of Directors, which established German control in perpetuity. It was regarded as a German political move and participation was rejected.

The financial terms, with a Turkish kilometre guarantee, were highly favourable to the company. Thus, the outside cost of construction of the first section which lies entirely in the plains of Konia, is estimated to have been £625,000 and the company retained a profit of at least 1½ millions sterling on this part of their enterprise. In the second section the Taurus range is being encountered and construction is more difficult and more costly. The railway must for a long time be a heavy burden on Turkish finance. The country through which it passes from the Mediterranean seaboard to the Tigris valley above Baghdad holds out little or no prospect of commercial advantage, and the financial system adopted offers no inducement to the concessionaires to work for increasing earnings. Thus the Baghdad railway company subsidise the working of the line to the Anatolian Railway Company at a rate of £143 per kilometre, as against £180 per kilometre guaranteed by the Turkish Government. The weight of the Turkish obligations in connection with the railway had an important effect upon the discussions in Paris in the summer of 1913, of the international committee for the examination of questions relating to the Ottoman debt. The committee was appointed in reference to the financial settlement between Turkey and the Balkan States after the war and it became evident that for some Powers, whatever the deserts of the Balkan Allies might be, the Baghdad railway and Turkey's ability to pay the guarantee upon it were the one fixed point to be guarded in the Ottoman Empire. Important negotiations took place between Germany and France, in 1915, to regulate their respective financial positions in regard to the railway so as to avoid future conflict of poli-



tional interests in the regions of the Baghdad lines and the French railway system in Syria.

The Baghdad Railway was during 1913 advanced southward from Konja 182 miles to Karapınar on the northern slope of the Taurus. On the southern side of the mountains, the Mersina-Adana line had been incorporated and 16 miles of track constructed, from Adana to Dorak among the southern foothills of the Taurus. Work then proceeded to link up Karapınar and Dorak. The distance between them through the mountains is 66 miles. The limestone mountain gorges involve much tunnel work and it was estimated that the work would occupy three years.

Eastward from Adana construction advanced throughout 1913 towards the head of the French Syrian lines at Aleppo and work was begun on a short branch line connecting this new place with Alexandretta. The branch was opened to traffic early in 1914. The Germans submitted plans to the Turkish Government in 1913 for the construction of a new port at Alexandretta in accordance with the terms of a supplementary concession sanctioning the branch line. These included the construction of three docks a feature of considerable interest. Work was begun early in 1913 on a line running north-west from Aleppo to meet that coming from Adana. It has to pierce the Amanus range of hills by a tunnel three miles long which it was estimated would take three years to construct.

At the time of writing information as to what has been done since the outbreak of war is incomplete but so far from the work having stopped it has for military considerations led to its being pushed forward with increased energy. Work has been most active in the western mountainous sections and one of the biggest tunnels of the whole line, the Blümedik tunnel, 1,825 metres long is said to have been pierced and to be approaching completion—by this time it is probably completed.

Progress has meanwhile been made with important stages of the line running north-east from Aleppo en route to Baghdad. This line was in 1913 open to Jerablus on the Euphrates and the construction of a large bridge at that spot was immediately undertaken, while motor boats and a steamer or two were taken in pieces to Jerablus and launched for river traffic to Baghdad. The journey from Beirut to Baghdad was thus reduced to 84 days, counting two days from Beirut to Jerablus by train six days by steamer to Feluja and finally 10 hours' carriage drive to Baghdad. The river traffic is likely to be interrupted in the dry season. The Jerablus bridge having been completed, the railway was completed and opened on July 1st, 1914 as far as Tel Abiad, 60 miles east of Jerablus. Earthwork had already been carried much farther. It was reported last summer that 40 miles of line eastward from Tel Abiad had been opened. Considerable further progress must now have been made.

Construction was meanwhile carried on on the Baghdad Mosul section, material for the latter being taken up-river from Basra to Baghdad by special barges and tugs. The line from Baghdad to Sulimka, about 40 miles north of

Baghdad was handed over for traffic on June 2nd, 1914 and it was reported last summer that another 80 miles on this portion of the railway had been completed. Reckoning all the sections completed and open for traffic, a distance of nearly 600 miles had been finished by the summer of 1914 out of a total of 1,020 miles reckoning from Konja to Baghdad. An official Deutsche Bank report issued in March 1914 stated that the Balkan wars had caused the German undertaking to concentrate its Turkish enterprises more than ever upon the Asiatic territories. To this end the Germans handed over their Balkan railway interests to an Austro-Hungarian financial group "on favourable terms and thus greatly facilitated their special direction of effort in Asia Minor and Mesopotamia. Great efforts were reported to have been made to hasten the construction of the line leading eastward to Baghdad during the past year.

An agreement was reached in 1914 between Britain and Turkey with the acquiescence of Germany regarding the approach to the Persian Gulf. Its central provision was that the railway should not proceed beyond Basra without an agreement with Britain. Britain waived any question of her participation in the Baghdad-Basra section of the line. It was agreed that there should be no differential rates on the railway and in regard to the latter Britain obtained the right of appointing two directors of the railway not for purposes of control but to guard British interests. Britain recognised Turkish suzerainty over Kuwait and Turkey recognised the independence of the Sheikh of Kuwait and the continuance unimpaired of the existing relationship between him and the British Government. The Anglo-Turkish Agreement has not yet been published but Sir Edward Grey announced in 1914 that "we get recognition by Turkey of the status quo in the Persian Gulf the status quo as we have regarded it for years past" (House of Commons June 29 1914). A statement issued in Britain on June 15 1914 stated: "The Anglo-German Agreement regarding the Baghdad Railway and Mesopotamia has been finalised in London by Sir Edward Grey and Prince Lichnowsky, the German Ambassador. A complete understanding has been reached on all questions at issue. The agreement will not come into force until after the conclusion of the negotiations with Turkey as on some material points the assent of the Porte will be necessary. The contents of the Agreement cannot therefore not be divulged at present." The war has altered the whole situation.

Germany also proposed to build a line from Baghdad to Khanikin where a pass through the mountains leads into the West Persian highlands. Russia had agreed to build a railway from Khanikin via Kermanshah and Hamadan to Teheran construction to begin within two years of the completion of the extension from Baghdad to Khanikin and then to be completed in 4 years.

Trans-Persian Line.

A trans-Persian line to join the Russian Caucasian system with the Indian Railways

first assumed proportions of practical importance in the late winter of 1911. Both the Russian and the Indian railways are fully developed up to the points which would be the termini of a trans Persian line and the following details carry us up to the period of the war. The Russian railway system reaches Julfa on the Russo Persian border between the Black Sea and the Caspian Sea. A line connecting with this runs from Batum, on the east coast of the Black Sea to Baku on the west coast of the Caspian. Incidentally article 59 of the Treaty of Berlin provides that Batum shall be a free port essentially commercial. The Persian Foreign Minister on February 6 1913 signed a concession to the Russian Julfa-Tabriz and Enzeli Teheran Road Companies giving the right to construct a railway from Julfa to Tabriz (93 miles) with an extension to Lake Urmiah and a preferential right to build a railway from Tabriz to Kasvin. Julfa and Tabriz were at that time equipped with a metalled road on which a motor omnibus service was maintained. The road is the property of the concessionaire company so that sections of it could conveniently be utilised for railway construction, the work of constructing the line being thus expedited. The railway was to be begun within two years of the granting of the concession and completed within six years and a time limit of eight years is fixed for the extension of the line from Tabriz to Kasvin, a further distance of 250 miles. The concession runs for a period of seventy five years. Option is reserved to the Persian Government to purchase the Julfa Tabriz line after a lapse of 35 years. Early in 1914 it was announced in Teheran that the line had been built from Julfa to Darabiz some 13 miles south of Julfa and news from Russia thus indicated that it would be completed to Tabriz in the spring of 1915. The Russian Government Department of Railways in June 1915 approved a concession to a Russian Syndicate for the construction of the line from a point on the railway close to Baku to Astara a point on the Caspian south western seaboard, where the Russian and Persian territories meet. More than one possible starting point for the trans Persian Railway is therefore in course of preparation.

On the Indian side the railway system is fully developed up to Baluchistan close to the Persian frontier. A broad gauge line running through Quetta to Nushki was constructed with the intention of its development for the benefit of trade which already runs by caravan along the "Nushki trade route" to the Persian province of Seistan. The Russian Government favoured linking up the trans-Persian railway with the Indian railways at this point. But the suspicious saw a strategic reason for this preference. The Indian Government found itself unable to approve the connection. They insist that the line shall run either from Yazd or Kerman to the seaboard. This condition is absolute. There remains then, a connection with the Indian North-Western Railway at or near Karachi.

The necessary financial arrangements for the preliminary work in connection with the proposal, which came from Russia, to connect the railways with Russia and India were com-

pleted in January, 1912. It was then stated that the Russian Committee were already in possession of a nearly complete survey of more than 300 miles from Astara to Teheran and the length of the line from there to Gwadar on the Perso-Baluch Frontier is some 1,200 miles. Soon after this announcement Mr Johns was appointed by the Government of India to survey a railway route between Karachi and Gwadar and found a good line with a general gradient of 1 in 250 the steepest being 1 in 90. Twelve of the principal Russian Banks were interested in the project and the desired amount of English and French capital was guaranteed, one English banking house having even offered to furnish the whole of the English quota. The French concerns are the Banque de Paris et des Pays Bas, the Credit Lyonnais, the Societe Generale, the Comptoir National, the Banque de l'Union Parisienne and Count d'Armauz.

Meetings of the international financiers concerned in the scheme were held and a Societe d'Etudes was formed. M. G. Lalabri, formerly a distinguished member of the French diplomatic service, was elected as President, with Sir William Garstin as British Vice-President and M. Homikoff ex-President of the Russian Duma, as Russian Vice-President. The Society consists of a council of administration of 24 persons. The Governments of all three countries gave their approval to the enterprise and on the firm representations of the British Foreign Office a formal memorandum was drawn up providing for absolute equality of British Russian and French control in the undertaking. It was agreed that in the northern half Russian interest should be 60 per cent. French interest 33 1/3 per cent and British 6 2/3 per cent, and in the southern half Russian interest 4 2/3 per cent French 33 1/3 per cent and British 60 per cent. The total interests of the parties in the whole line would thus be equal. The French and Russian proposal was that interests should be equal for the whole line. The above arrangement was made to meet British susceptibilities.

No announcement has yet been made of the settlement of further details in regard to the line. Its general route will presumably be from Astara via Teheran to Kerman or Yazd, and thence to either Bunder Abbas, at the entrance of the Persian Gulf, or Chabar a point on the Mekran Coast, about 100 miles west of Gwadar. As to the cost £18,700,000 was the amount first declared by Russian experts as sufficient to cover the cost of construction and provision of rolling-stock for the 1,400 miles of railway in Persian territory. English experts then believed that £15,000,000 would be sufficient. Further investigation has led competent experts on the English side to say that the capital involved must eventually total £30,000,000 at least. The line presents no great engineering difficulties, but there would be a great variety of gradients throughout its length the line will rise at several points to some thousands of feet above sea level, and numerous detours will be necessary both for gradients and to serve local needs.

Central Asian Lines.

There remains the possibility of linking up the Russian and Indian railway systems by

way of Afghanistan. But many strategical objections have been raised to the trans-Persian railway and these considerations are strengthened tenfold in regard to bringing the Russian Central Asian lines nearer Kabul. Russia has in recent years considerably increased her railway facilities in Central Asia. The line from Krasnovodsk on the East Caspian shore now extends via Merv and Bokhara and Samarkand, to Andijan which is some 350 miles north west of Kashgar the important town of Chinese Turkestan. The great network of railways in European Russia is also now directly connected by the Orenburg line with Tashkent, and a connecting line links it up with the southern railway just described. From Merv a line runs south to Kashk on the Afghan border within a few miles of Herat. It is reported that Russia intends building another line extending the Orenburg Tashkent connection to Termez a point on the Oxus 50 miles or less from Balkh, which again is close to the important strategical point, Mazar-i-Sharif. It is doubtful whether in a race, Russia starting from Termez or Britain starting from the Khyber could reach Kabul first. Termez, where it is stated, Russia proposes to throw a bridge across the Oxus, is the highest point at which that river is navigable from the Aral Sea. The suggestion has often seriously been made in recent years that the Russian line from Merv to Herat should be linked to the Indian line which from Quetta proceeds to the Afghan border at Chaman. The distance between the two railheads is about 520 miles.

Persian Gulf Lines.

Britain's special interests in regard to Persian railways are primarily associated with lines running inland from the Persian Gulf to supersede the old mule routes. Special importance has for many years been attached to schemes for a railway from Mohammerah (at the opening of the Karun Valley, where the Karun River runs into the Shatt-el-Arab just below Basra near the Turkish border), northwards into the rich highland country of Western Persia. Britain has long established special relations with the Karun Valley and has a large trade there. An agreement was reached between the Persian Government and the representative of a British Syndicate in February 1913 for the construction of a railway from Mohammerah to Khoramabad in the interior. Persia offered the syndicate a two years' option during which period the route of the line was to be surveyed. The Persian Government undertook to decide, on the completion of the survey whether it would build the railway as a State line under contract with the Syndicate, or whether it would grant the Syndicate a concession for the construction of the line. The Syndicate immediately began preliminary operations. Four English engineers were sent out and exactly

two months after the agreement was announced they proceeded to Dibrul, on the route of the line for the purpose of making preliminary surveys. The Syndicate is composed of six groups of which four are already connected with Persian commerce viz. the Anglo-Persian Oil Company the Imperial Bank the Euphrates and Tigris Steam Navigation Company (Messrs. Lynch) and the British India Steam Navigation Company. The Syndicate is prepared to undertake much more extensive railway construction in Southern Persia. As Russia will eventually build a line from Teheran to Kharankin, the Khoramabad line will probably be linked with this line at Hamadan or elsewhere and Persia will thus have two routes from the Gulf to the north. The latest reports state that the survey work on the Mohammerah Khoramabad line was hung up owing to the disturbed state of the Luristan tribes around Dibrul. The Persian Government agreed to a slight modification of the terms of the concession to meet the situation thus created and Sir E. Grey stated in the House of Commons that every effort will be made to proceed with survey as soon as the situation in Luristan appears to the responsible authorities to justify such a step. It is contemplated that the Swedish gendarmery which has done very good work recently in other parts will devote their attention to Luristan with the object of pacifying that part of the country as they have done in some other parts. As a result of repeated Anglo-Russian applications the Swedish Government permitted General Hjalmarsson the head of the Persian gendarmery to return to Persia in November 1914. The war has resulted in great unrest as a result of German instigation in Western Persia.

Period of Transit.

It is commonly said that the Trans-Persian railway would bring India within eight days of London. The possibility was demonstrated by the performance of a party who travelled from London to Persia in 1914 and sent the following details of their journey to the Times. The party left London by the 8-35 p.m. train on a Saturday and arrived at Baku at 10-30 p.m. (London time say 7-30 p.m.) on the following Thursday and at Enzeli, on the south west shore of the Caspian, (reached by steamer from Baku) at 6 a.m. on the following Saturday—that is, within six and a half days from London. They travelled via Folkstone, Falmouth, Berlin, Warsaw, Brannenburg, Rostoff and Baku and were detained at War saw some ten hours and at other points a full 12 hours more thus reducing the actual travelling to 6½ days, which was a record. There remained, at the end of their journey only the trans-Persian stage, which it is hoped to cover by the new line, so that an express service from London to Delhi ought to be easily possible within the eight days.

Foreign Consular Officers in India.

Name.	Appointment.	Port
Argentine Republic		
Mr O W Rhodes	Vice-Consul	Calcutta.
Austria Hungary		
The American Consuls are in charge of Austro-Hungarian interests during the War		
Belgium		
M. Robert Chaldron	Consul	Bombay
Mr J Simon	Do	Calcutta
Mr J H Fyle	Do	Karachi
Mr L S Murray	Do	Aden
Mr G K Walker	Do	Madras.
Mr W Macdonald	Do	Rangoon
Mr R A Scott	Do	Akyab
Mr J Lince	Vice-Consul	Calcutta
Mr R. W. Watson (In charge)	Do	Do
Bolivia		
Kumar Shyama Kumar Tagore	Consul-General	Calcutta
Brazil.		
Mr Joaquim D S Nahapiet	Consul	Calcutta.
Mr T. A. DeSouza	Do	Do
Dr Edward F Underwood, M. A. M. D	Vice-Consul	Bombay
Ph. D., J. P.	Do	Rangoon
Mr J B Halliday	Commercial Agent	Do
Mr J F Brown		
Chile.		
Senor Don A D Garces	Consul-General	Calcutta
J G Bendien (Acting)	Vice-Consul	Bombay
Mr R Menzies	Do	Madras
Senhor L. Grommers	Do	Calcutta.
Mr A B Leishman	Do	Chittagong.
Mr C Kauffeld	Do	Rangoon
China.		
Mr Hsiao Yung Hsi	Consul	Rangoon
Costa Rica		
Kumar Shyama Kumar Tagore	Consul	Calcutta.
Cuba.		
Mr John Zuberbuhler (Acting) on leave	Honorary Consul	Bombay
Dr Blasio Paes (In charge)	Do	Do
Vacant	Do	Calcutta
Denmark		
Mr C J Elton	Consul General	Calcutta.
Mr A F Sells	Consul	Bombay
Mr E S Murray	Do	Aden
Mr R. T. Menzies	Do	Madras
Mr I F Jensen	Do.	Rangoon
Mr L. B. Stevens	Vice-Consul	Karachi
Mr S G L. Bustace	Do.	Calcutta.
Mr. P T Christensen	Do	Moolmein.

Name.	Appointment.	Port.
Resident		
Kumar Shyama Kumar Tagore	Consul	Calcutta.
France.		
M. Dejean de la Batie	Consul-General	Calcutta.
Mr R. Nicault	Chanceller	Do
M. C. Barret	Consul	Bombay
M. H. Martin	Vice-Consul	Do.
M. M. Eies	Consular Agent	Aden
Mr R. L. Price	Do	Karachi
Mr F. R. L. Worke	Do	Madras.
Vacant	Do	Chittagong
Vacant	Do	Rangoon
Do	Do	Akyab
Do.	Do	Cocconada.
Do	Do.	Tellcherry
Do		Do.
Germany		
The American Consuls are in charge of German interests during the War		
Greece.		
Mr E. Apostolides	Consul	Calcutta.
Gauismania.		
Mr H. J. Sanders	Consul	Calcutta
Italy		
Marquis F. Medici di Marignano	Consul-General	Calcutta
Cav G. Cecchi	Do	Aden
Cav De G. Gortio	Consul	Bombay
Mr J. Medici	Do.	Rangoon
Vacant	Vice Consul	Calcutta.
Signor Alfredo Maurato	Do	Bombay
Mr Gordon Fraser	Consular Agent	Madras.
Vacant	Do	Moulmein
Vacant	Do	Akyab
Mr E. J. Guy, R. N. R.	Do.	Bassien
Signor Aldo Viola	Do	Karachi
Japan.		
Mr Kanetaro Tijiima Shorokul	Consul-General	Calcutta.
Mr Y. Shibata	Do	Do
Mr Yasukichi Yatabe	Consul	Bombay
Libertia.		
Dr. Benode Behari Banerjee	Consul	Calcutta.
Dr C. H. Freeman Underwood M.D	Do	Bombay
Mexico.		
Mr H. L. B. Gall	Consul	Calcutta.

Name	Appointment	Port
Netherlands		
Mons J Barendrecht	Consul-General	Calcutta.
Mons L Grommers	Consul	Do
Mons J G Benden	Do	Bombay
Mr D van Wyngaerden	Do	Karachi
Mr W Meek	Do	Aden.
Mr R. A. Scott	Do.	Akyab.
Monsieur W Massink	Do	Rangoon
Mr J W Crussha	Do	Madras
Mr A. J Steiger	Do.	Colombo.
Norway		
Mr H J Sanders	Consul-General	Calcutta.
Mr F R Hardcastle (on leave)	Consul	Bombay
Mr A D MacPhail (Acting)	Do	Do.
Mr W Meek	Do	Aden
Sur H B Fraser Kt	Do	Madras.
Mr J F Simpson	Do	Do
Mr H A. Rees	Do	Rangoon.
Mr G J Smidt	Vice-Consul	Calcutta
Mr S G Ritherdon	Do	Chittagong
Mr H Lucas	Do	Do
Mr A Gardiner	Do	Cocanada.
Mr D Miller	Do	Tuticorin
Mr E G Moylan	Do	Akyab
Mr J Anderson	Do	Bassem
Mr J McCracken	Do	Do
Mr J J Shaw	Do	Moulmein.
Mr E F B Wyatt	Do	Karachi
Persia		
Mirza Sir Davood Khan Meftahoe-Saltaneh K C M G	Consul-General	Calcutta.
Mirza Ali Akbar Khan B.A., Barrister at-Law	Consul	Bombay
Rahan Bahadur Haji Mirza Shujaut Ali Beg	Do	Calcutta.
Vacant	Do	Madras.
Kumar Shyam Kumar Tagore	Vice-Consul General	Calcutta.
Mr Ayub Khan	Vice-Consul	Karachi
Vacant	Do	Rangoon
Do.	Do	Moulmein.
Peru		
Mr W Smidt	Consul	Rangoon.
Mr J B Strain	Do	Calcutta.
Portugal.		
Senhor A Casanova	Consul General	Bombay
Dr E M. D Souza	Consul	Rangoon
Mons. C Jambon	Do	Calcutta.
Mr Shairp	Do	Colombo
Mr Hormuzji Cowasji Dinshaw	Do	Aden
Dr F da Cunha Pinto	Vice-Consul	Bombay
Dr A. B deFonseca	Do.	Karachi.
Dr Erasmo Dias	Do	Poona.
Dr A. M. D Souza	Do	Rangoon.

Name	Appointment.	Port.
Russia		
Vacant	Consul-General	Calcutta.
Mons. M. Riee	Vice-Consul	Aden
Mons. Vsevolod Ampenow	Do	Calcutta.
Mr. S J Bodalline	Do	Do
Siam		
Vacant	Consul	Calcutta
Mr B J B Stephens	Do	Rangoon
Mr A. H Russell	Do	Moulmein
Mr O Van-der-Gucht	Do	Do
Spain.		
Jose Taxongly Espanol	Consul	Bombay
Mons. L. Gressoux	Vice-Consul	Calcutta.
Mons. M. Riee	Do	Aden
Mr J S. Walker	Ag. Do	Rangoon
Sweden.		
Mr W L Wanklyn	Consul-General	Calcutta
Mr H. B. Logan	Consul	Madras.
Mr L. Volkart	Do	Bombay
Mr A K. Adams	Do	Aden
Mr E T Hicks	Do	Rangoon
Mr T H Wheeler	Vice-Consul	Calcutta
Vacant	Do	Moulmein
Turkey		
The American Consuls are in charge of Turkish interests during the war		
United States of America		
James A. Smith	Consul-General	Calcutta
J F Doughten	Vice-Consul	Do
Samuel C Rest	Consul	Rangoon
H. B Osborn	Vice-Consul	Do
Lucien Meuninger	Consul	Madras.
Frank C. Rich	Vice-Consul	Do
Walter A Leonard	Consul	Colombo
John A Nye	Vice-Consul	Do
Vacant	Consul	Bombay
Selby S Coleman	Vice-Consul	Do
James Oliver Laing	Consul	Karachi.
H. L. Rogers	Vice Consul	Do
Vacant	Consul	Aden
Arthur G Watson	Vice-Consul	Do
H W Timewell	Consular Agent	Bussrah Persian Gulf.
	Do	Chittagong
Uruguay		
Leoa. C Jambon	Consul	Calcutta.

The Army in India.

The great sepoy army of India originated in the small establishments of guards, known as peons, enrolled for the protection of the factories of the East India Company but sepoys were first enlisted and disciplined by the French, who appeared in India in 1665. Before this, detachments of soldiers were sent from England to Bombay and as early as 1625 the first fortified position was occupied by the East India Company at Armagon near Vasmulpattam. Madras was acquired in 1640 but in 1664 the garrison of Fort St. George consisted of only ten men. In 1661 Bombay was occupied by 400 soldiers four years before the French appeared in India. In 1683 the garrison of Bombay consisted of 235 men of whom only 93 were English the remainder being French Portuguese and native.

While the origin of the regular sepoy army is usually dated from 1748 when Stringer Lawrence the father of the Indian Army enrolled an Indian force in Madras, it is interesting to note that there was a considerable military establishment in Bombay prior to that date. In 1741 this establishment which was considered as one regiment consisted of a captain nine lieutenants, fifteen ensigns, a surgeon two sergeant majors 82 sergeants, 82 corporals, 28 drummers and 319 European privates, together with 81 masters (probably Eurasians) and 900 topasses—presumably Goanese. These were distributed in seven companies their total monthly pay being 10,314 rupees. There was in addition a kind of native militia composed of 700 sepoys including native officers. These were maintained at a monthly cost of 312 rupees. They were not equipped or dressed in a uniform manner, but supplied their own weapons—swords and shields bows and arrows, pikes lances or matchlocks. After the declaration of war with France in 1744 the forces at Bombay were considerably increased and an artillery company was raised. Already in 1740 the French at Pondicherry had raised a large force of Muzumbar soldiers armed and equipped in the European fashion and the fall of Madras which the French captured in 1746 induced the English East India Company to begin the formation of a military establishment of like nature. In January 1748 Major Stringer Lawrence landed at Fort St. David to command the forces of the Company. The English foothold in India was then precarious. The French under Duplex were contemplating further attacks and it became necessary for the English Company to form a larger military establishment. The new commandant at once set about the organisation and discipline of his small force. The garrison was organised in seven companies and the peons or factory guards were also formed into companies. This was the beginning of the regular Indian Army of which Lawrence eventually became Commander in Chief. In Madras the European companies developed into the 1st Madras Fusiliers similar companies in Bombay and Bengal became the 1st Bombay and 1st Bengal Fusiliers. The native infantry was similarly developed and organised by Lawrence and Olive who was his contemporary, and military adventurers—both Mussulman and Hindu—

readily took service under the East India Company. By degrees Royal Regiments were sent to India the first being the 39th Foot, which arrived in 1754.

Struggle with the French.

From this time for a century or more the Army of India was engaged in constant war. After a prolonged struggle with the French whom Duplex had by 1750 raised to the position of the leading power in India, the efforts of Stringer Lawrence, Olive and Eyre Coote completed the downfall of their rivals, and the power of England was established by the battle of Plassey in Bengal and on the field of Wandewash in Southern India. In 1761 the final overthrow of the French was completed, and the territories of that enterprising people were reduced to a few settlements on the coast the principal of which, Pondicherry, was captured in 1793. But while the Army of India had accomplished this much they had now to contend with the great native powers, both Hindu and Mahomedan. A number of independent states had arisen on the decline of the Mughal Empire some ruled by the satraps of the Emperor of Delhi and others by the Marhatta princes who had succeeded to and extended the conquests of Sivaji while in Mysore Hyder Ali, a Mussulman adventurer had established himself in the place of the Hindu Raja. A great and prolonged struggle took place with the ruler of Mysore in which the forces of the Crown and the Company's Army bore a distinguished part. This struggle extended over nearly twenty years, and terminated only with the death of Hyder's son and successor Tipu when his capital of Seringapatam was taken by assault in 1799.

Presidency Armies

The extension of British territory had necessitated a corresponding augmentation in the strength of the armies of Bengal, Madras and Bombay which were entirely separate organisations, as rendered requisite by the great distances and independent territories by which they were separated. But Bengal and Bombay troops had taken part in the war in Southern India although the brunt of the fighting had fallen on the Madras Army. These armies had grown both in strength and efficiency. In 1787 the Governor-General Lord Cornwallis wrote to the Duke of York—"A brigade of our sepoys would make anybody emperor of Hindustan. The appearance of the native troops gave me the greatest satisfaction some of the battalions were perfectly well trained and there was a spirit of emulation among the officers and an attention in the men which leave me but little room to doubt that they will soon be brought to a great pitch of discipline."

Reorganisation of 1796.

In 1796 when the native armies were reorganised the European troops were about 13,000 strong the native troops numbered some 67,000, the infantry being generally formed into regiments of two battalions each. In Bengal native infantry regiments were formed by linking existing battalions. The establishment of each two-battalion regiment was 1 colonel, 1 commandant, 2 lieutenant-colonels, 3 majors, 8 captains

22 horsemen, 10 mizans, 2 European non-commissioned officers, 40 native officers, 200 native non-commissioned officers, 40 drummers and fife, 1,600 sepoy. Each battalion had two grenadier and eight battalion companies. Promotion and furlough rules for the officers were promulgated and interior economy was improved. At the same time the Madras and Bombay armies were reorganised. The Madras cavalry was formed into four regiments, having twelve British officers each, the artillery into two battalions of five companies each and fifteen companies of lascars. The native infantry was organised in eleven two-battalion regiments, rather stronger than those of the Bengal establishment. There were also two battalions of European infantry. The Bombay Army was organised on similar lines, with an establishment of six two-battalion regiments and a Marine Battalion six companies of European artillery were formed in 1798.

Policy of Wellesley

Besides the wars that have been referred to, the East India Company had been engaged in minor operations particularly against the growing power of the Marhattas, which menaced the stability of the British in India. In 1798 the Marquis Wellesley arrived as Governor-General firmly imbued with the necessity of reducing the power and influence of the French, which had again arisen through the military adventurers who had established themselves in the service of various native powers. There was a French party at Seringapatam and the ruler of Mysore was in correspondence with Napoleon Bonaparte in Egypt. At Hyderabad the French adventurer Raymond dominated the State army having under his command a disciplined force of 14,000 men who carried the colours of the French Republic and wore the Cap of Liberty engraved upon their buttons. In the Marhatta States, and especially in Sindia's service, adventurers of the same enterprising nation had disciplined large forces of infantry and artillery, and the blind Mughal Emperor at Delhi was held in the power of Perron, Sindia's French General. One of the first acts of the new Governor-General was to disarm the French party at Hyderabad, a measure carried out by Captain (afterwards Sir John) Malcolm. The French officers in the Nizams' service were deported to their own country and a treaty of alliance was concluded under the terms of which a Contingent of Hyderabad Troops was supplied for service in the campaign of Seringapatam. Troops of all three presidencies took part in the campaign which terminated with the capture of Seringapatam and the death of Tipu on the 4th May 1799. It was in this campaign that Colonel Arthur Wellesley, afterwards Duke of Wellington, came into prominent notice. It was now necessary to direct attention to affairs in the Marhatta States which were encroaching on the territories of our ally the Nizam, and had dangerous ascendancy throughout India. An opportunity occurred in supporting the Peshwa, so had been expelled from Poona by Holkar.

The Marhattas.

The Marhattas, originally more predatory than, had become an organised nation for the rule of Sivaji. After his death

the Government which he had inaugurated passed from the feeble hands of his successors, the Rajas of Satara, into those of the astute Brahmin Ministers, the Peshwas, who had their seat at Poona. Other Marhatta princes, descended from officers of State—Sindia, Holkar, the Galkwar and the Raja of Berar—held sway over a great part of India, and were attempting to extend their dominions and consolidate their influence from the Ganges to the Godavary. The Marhattas, famous as irregular predatory hordes in times gone by had never been remarkable for courage the place of which was supplied by their natural astuteness and capacity for organisation. The genius of the nation lay more in the direction of diplomacy and intrigue, and a false glamour appears to surround their name as warriors, to which history has lent an undeserved prestige. Their success must in part be ascribed to their intellectual acumen and subtlety and in part to the effete condition of those with whom they had to contend. The edifice of their nationality was built on the ashes of the declining Mughal Empire. But even since the days when their military renown had rested on some solid foundation they had rapidly declined, and the phantom of their fame was dissipated the moment they came into collision with European armies. Their artillery and infantry, composed of Jats, Rajputs, Arabs and other mercenaries, fought with desperate valour, but the far-famed Marhatta horse disappeared from the field at the beginning of every action. General Lake in the north of India, defeated the forces of Sindia in a succession of battles at Aligarh, at Agra, at Delhi and Laswari while in the south General Arthur Wellesley captured Ahmednagar and Gawilgarh, and gained complete victories over the combined forces of Sindia and the Raja of Berar at Assaye and Argaum. In these campaigns a considerable British force and a large portion of the Bengal and Madras armies were employed, they acquitted themselves with their customary valour and gained some of the most notable victories recorded in English history. During the progress of these wars the Army of India was considerably augmented, and we find that on reduction to peace establishment in 1805 there were some 25,000 British and 150,000 native troops in India.

Mutiny at Vellore

The Indian Army has been from time to time subject to incidents of mutiny which were precursors of the great cataclysm of 1857. In the fort of Vellore in 1805 were confined the sons of Tipu Sultan, these descendants of the most fanatical enemy of the English in India being permitted to maintain a large body of adherents and an almost regal state. Naturally they intrigued. The native soldiers of the Company had grievances. The military authorities had issued a new pattern of turban, which owing to its resemblance to the head-dress worn by half-caste drummers, gave rise to a rumour that their conversion to Christianity was intended. Other inconsiderate orders, prejudicial to the religion and sentiments of both Hindus and Mahomedans, caused the smouldering discontent already existing to break out into open

mutiny. There were many signs and portents typical also of the greatest rebellion. The officers had become estranged from their men and lived too much apart from them. The native troops suddenly broke out and killed the majority of the European officers and soldiers, their wives and children, quartered in the fort while the striped flag of the Sultan of Mysore was raised on the ramparts. But if the parallel so far is close the method of dealing with the outbreak of 1804 differed widely from the weakness displayed at Meerut in 1857. There was happily at the neighbouring station of Arcot a soldier of energy, decision and courage both moral and physical. Colonel Gillespie with the 19th Light Dragoons and gallopers came down upon the mutineers like a hurricane, blew in the gates of the fort, destroyed most of the sepoys and in the course of a few hours suppressed the rebellion. This retribution struck terror into the hearts of other would-be mutineers and disaffection which was rife throughout the Madras Army did not elsewhere find active expression.

Overseas Expedition.

Almost as dangerous was the mutinous discontent excited among the British officers by the ill-advised measures of Sir George Barlow unfortunately acting temporarily as Governor-General in 1809, which was with difficulty quelled by the tact of wiser and more considerate men. It was not only within the confines of India that the Army distinguished itself during the period under review. Expeditions were made beyond seas. Bourbon was taken from the French Ceylon, Malacca, and the Spice Islands were wrested from the Dutch and Java was conquered in 1811 by a force largely composed of Bengal troops which had volunteered for this service. In 1814 took place the Nepal War, in which the brave Gillespie who had so distinguished himself at Vellore and in Java was killed when leading the assault on a fort near Dehra Dun. This war is chiefly of interest from its having introduced us to the Gurkhas, inhabitants of Nepal who form so large and efficient a portion of our Indian Army.

Second Mahratta War

In 1817 hostilities again broke out with the Mahrattas. The primary cause of the war were the Pindaris a military system of bandits of all native races and creeds who formed mostly from the military adventurers who had been employed by native potentates, had established themselves in strong holds on the banks of the Nerbada river from whence they issued to plunder the country from the end to end. These people had become so formidable that a large army had to be assembled for their destruction for they viewed with dismay and opposed with force the establishment of effective power in the land where they had so long carried on with impunity their lawless modes of life. To cope with this growing evil armies were to close in from every direction on the fastnesses of the Pindaris. At the same time a watch had to be kept on the Mahratta States, whose rulers, encouraged by the feeble policy that had followed when the strong hand of the Marquis Wellesley was removed, were pre-

pared to take up arms once more. Practically the whole of the Army took the field, and all India was turned into a vast camp. The experiences of 1817 differed in no wise from those of 1803, except that resistance was less stubborn as the brigades of the European military adventurers no longer existed in the Mahratta armies. The Chiefs of Poona, Nagpore, Indore and Gwalior rose in succession. At the battle of Kirkee, where the tramp of the myriad Mahratta horse shook the very earth, they were beaten off by one-tenth of their numbers after a feeble attempt to charge a native regiment. At Koregaum where the detachment under Captain Staunton offered so gallant a resistance to the attacks of a vastly superior force, the Arabs alone fought on the side of the Mahrattas, 20,000 of whom stood idle on the plain. At Sitabdi a few regiments of Madras native infantry beat off the attacks of the army of the Raja of Nagpore, and victory was assured by the charge of a troop of Bengal cavalry. At the battle of Mahidpur the hosts of Holkar melted like snow from the face of the desert before the determined onslaught of a small army of British and native troops. This was the last war in Southern India. The tide of war rolled to the north never to return. In the Punjab, to the borders of which our frontier was now extended, the Army was to meet in the great military community of the Sikhs, a braver and more virile foe.

Reorganisation in 1824.

In 1824 there was another outbreak of mutiny this time at Barrackpore in a regiment that was unwisely dealt with when about to proceed to the Burmese War. In that year the armies were reorganised, the double-battalion regiments being separated, and the battalions numbered according to the dates when they were raised. The Bengal Army was organised in three brigades of horse artillery five battalions of foot artillery two regiments of European and 63 of native infantry 5 regiments of irregular and 8 of regular cavalry. The Madras and Bombay armies were constituted on similar lines, though of lesser strength. There were also various local forces, such as the Hyderabad Contingent paid for by the Nizam consisting of horse foot and artillery. The irregular cavalry were all soldiers that is the troopers furnished their own horse and equipment, as do the greater part of the native cavalry of to-day. The irregular and local corps had each only two or three European Officers.

First Afghan War

In 1839 the occupation of Afghanistan was undertaken. Kabul was occupied, and a large Army stationed in this country beyond the Indus. There followed the disasters of Kabul, the murder of British envoys, and the retreat in which a whole army perished. This disaster was in some measure relieved by subsequent operations but it had far reaching effects on the morale of the Army and on British prestige.

The Sikhs.

The people of the Panjab had witnessed from afar the disaster of the retreat from Kabul. It is true that they had seen also the advance of the victorious army and the triumph of its return which was celebrated

with barbaric paganism at Peshawar, but the British army had lost the prestige of invincibility which it had gained during a hundred years of victory throughout peninsular India. It is convenient here to give some account of the Sikhs in whom our army met a more formidable enemy than they had hitherto encountered who have since supplied many of the best soldiers in its ranks, and who less than nine years later served with valour and fidelity beneath our colours in the great struggle of the sepoy war. In the early part of the sixteenth century Baba Nanak, a peasant of a village near Lahore, founded the religious sect which was to play such an important part in the history of India. The religion he preached was pure monotheism and in no way militant in its original form. The new faith founded on the Unity of God and the religious equality of man gradually made great headway the philanthropy and tolerance of its tenets appealing to the hearts of men. The Gurus who succeeded Nanak were active in their teaching they founded and built the Golden Temple at Amritsar and the sect began to assume a political significance. This brought them into conflict with the Mughal Government and Sikhism was subjected to that persecution which was alone necessary to transform it into a militant political force. Har Govind, the Sixth Guru became a martyr as well as a spiritual leader and on his death in 1645 left the Sikhs a strong and militant power.

After two hundred years the Sikh faith became established as a guiding principle to work its way in the world. Nanak disengaged his little society of worshippers from Hindu idolatry and Mahomedan faith. Amar Das preserved the community from declining into a sect of ascetics. Arjan gave his increasing followers a written rule of conduct and a civil organisation. Har Govind added the use of arms and a military system. Govind Singh bestowed upon them a distinct political existence, and inspired them with the desire of being socially free and naturally independent. Sikhism arose where fallen and corrupt Brahminical doctrines were most strongly acted on by the vital and spreading Mahomedan belief. As in the case of other sects whose vicissitudes are recorded in the history of the world, religious persecution gave to Sikhism that vivifying influence which was the necessary stimulus to permanence and progress. With varying fortunes the power of the Sikhs was consolidated, and by 1785 they were predominant from the frontiers of Oudh to the Indus. Their prestige is illustrated in the story of the traveller Foster who describes the alarm caused to a petty Chief and his people by the appearance of two Sikh horse men under the walls of their fort. The great Chief Ranjit Singh, the "Hon of the Punjab," established his ascendancy throughout that province, and with the aid of European military adventurers such as Ventura and Allard organised a powerful regular army. Ranjit Singh had the wisdom to keep on friendly terms with the English but his death was the signal for internal dissensions which in course of time rendered the Army the principal power in the state, and brought them into conflict with their English neighbours.

Sikh Wars.

A large portion of the Bengal Army under Sir Hugh Gough took part in the first Sikh War in 1845-6. In the opening battle of which at Muddki and Ferozeshahr the native troops did not greatly distinguish themselves, although they retrieved their reputation in subsequent actions when the Sikhs were defeated at Aliwal and Sobrasim. But the Bengal Army had for some time been undergoing that deterioration of discipline which culminated a dozen years later in the mutiny. They were no longer the soldiers of Lake and Hastings the heroes of Laswari of Seringapatam and of expeditions overseas. In the snows and deserts of Afghanistan and amid the bloody scenes of the Khurd Kabul Pass and Jagdalak they had lost much of their ardour and prestige while they had witnessed the defeat and slaughter of their hitherto invincible English comrades. They fought well on occasion, stimulated by the presence and example of English regiments but their training and discipline left much to be desired. The second Sikh War followed a few years later when after the indecisive battle of Chillianwalla, the Sikhs were finally vanquished at Gujrat. The other campaigns belonging to this period were the conquest of Sind by Sir Charles Napier and the Second Burmese War. On the eve of the Mutiny there were in the Bengal Army 21,000 British and 137,000 native troops in the Madras Army 8,000 British and 49,000 native troops and in Bombay 9,000 British and 45,000 native troops. The conquest of the Punjab extended our frontier to the country inhabited by these turbulent tribes which have given so much trouble by their raids and forays while they have supplied many soldiers to our army. To keep order on this north western limit of the Empire the Punjab Frontier Force was established and was constantly engaged in small expeditions which, while they generally involved but little bloodshed, kept the Force fully employed for many years, and involved much arduous work in the pursuit of an elusive enemy.

The Indian Mutiny

The history of the Indian Army in general and of the Bengal Army in particular is so closely bound up with the great Mutiny of 1857 that it is necessary to enter into some account of the causes which brought about that catastrophe, and to sketch in outline its chief events. In 1858 Lord Dalhousie resigned the Viceroyalty of India after a term of office marked by strenuous activity and by an extensive policy of annexation. From Oudh a disolute and incompetent king was removed and his territories were annexed to the British dominions an act which could not but have a disturbing effect in a country where the natural and hereditary rulers of the people were regarded with the greatest veneration. The territory of Jhansi was also annexed, the Government refusing to allow the Rani to adopt an heir to succeed her deceased husband, and the Nana of Bithur adopted son of the last Peshwa Bajji Rao was refused a continuance of his adoptive father's pension. These two latter the Rani of Jhansi and Nana Sahib, became the bitterest and most ardent of our enemies. The

annexation of Oudh was a severe shock to the susceptibilities of the feudal nobles of that province, from which, it must be remembered a large portion of the Bengal Army was recruited. There were thus political causes of disaffection in India apart from the constant presence of racial difference fostered by political agitators and a seditious press. There were Princes and States ripe for rebellion while on the throne of the Mughals at Delhi there sat the shadow of a monarch whom tradition and the greatness of a name caused to be venerated by Mussalmans throughout India. And in the Bengal Army political agitators found a fertile soil for planting the seed of corruption.

The infantry of that army had in its ranks a great majority of Oudh sepoy, while men of the same race formed the bulk of forces such as the Gwalior Contingent maintained by Native States under the terms of treaties with the British Government. A small percentage of Mahomedans of Hindustan was also to be found in the Bengal Native Infantry while they supplied the greater part of the Cavalry of that Presidency. It will thus be understood that in both armies there was a dangerous preponderance of one class, facilitating and extending combination on the part of the disaffected. It was different with the armies of the other Presidencies which were entirely separate from the Bengal Army and under their own Commanders in Chief and where men of every caste and creed were mingled in the ranks a system which obviated the likelihood of combination among men ever prone to be suspicious of one another. There were in the Madras Army family ties to keep the men true to their salt. In that Presidency the sepoy had in almost every instance a large number of relatives living with him. He was not likely to abandon these relations to their fate and mutiny against the Government he served. The Presidential system in fact offered an effective safeguard in the water-tight compartments that prevented those abuses from intermingling. There was not only no sympathy but some antagonism between the different armies and on one occasion when regiments of the northern and southern Presidencies were serving together an order had to be issued that the Madras sepoys were not to irritate their brethren by calling them Bengalis which was regarded as an opprobrious term applicable properly to a despised and unwelcome race which has never furnished any soldiers. While the susceptibilities of the Oudh sepoy had been hurt by the annexation of his country the Muhammadans still held in veneration the puppet who occupied the throne of the great Mughals and cherished the recollection of former glory and power. They had in addition the influence of a fanatical religion to incite them to a holy war against the Christians. Their combination with the Hindus is, however, somewhat remarkable and the causes which brought these antagonistic peoples into alliance must be sought for elsewhere than in political influences. That there were leaders such as the Nana, the Rani of Jhansi and the Maulvi of Fyzabad who made use of the native army for purposes of rebellion has already been indicated. But the army would not mutiny merely

at the instigation of a few political intriguers and agitators. The seeds of disaffection had long been growing in the Bengal Army. The disasters of the Afghan War had taught the sepoy that his European comrade was not invincible. The proportion of Native to British soldiers in India was far too great. The Indian Empire in those days rested too largely on mercenary forces. There were in the country only some 38,000 British soldiers while the native troops numbered 200,000 men, exclusive of the numerous levies of independent or semi-independent princes. A great establishment of native artillery had grown up. While the Bengal sepoy had deteriorated in morals he had cause for discontent. He had been alternatively pampered and abused. The grant of extra allowances on all occasions for field service had in the first place excited his cupidity, their withdrawal had aroused his discontent. He feared that attempts were being made to destroy his caste and subvert his religion the points on which he was most sensitive. There was too much centralisation of power in the hands of the military authorities at Army Head quarters. The proselytising spirit was abroad, and some amiable but fanatical officers preached their religion about the country. The crucial question of the greased cartridges brought matters to a head. With a great deal of reason the sepoys complained of the new cartridge, the paper of which was greased with animal fat said to be that of swine and oxen the former abhorrent to Mussalmans, the latter sacrilegious to Hindus. The mysterious unleavened cakes were circulated and while their significance was realised by some it was ignored by those in authority.

Course of the Rising.

The introduction of the new cartridge for the Snider Rifle in January 1857 caused widespread alarm among the native ranks of the army. At Barrampore the 19th Bengal Infantry mutinied and was marched to Barrackpore and there disbanded on the 31st March. On the 29th March, sepoy Mangal Pandey of the 34th Bengal Infantry at Barrackpore, attacked and wounded the Adjutant and European sergeant-major of his regiment. At Meerut on the 24th April eighty-five men of the 3rd Bengal Cavalry refused to take the new cartridge. They were tried and sentenced to ten years imprisonment their sentence being announced and fetters rivetted on at parade on the 9th May. This degrading aggravation of punishment was the spark that fired the mutiny. Next evening the troops in Meerut rose, and aided by the bazaar rabble killed every European they met, released their comrades from the gaol and went off to Delhi. It is unfortunate that there was at Meerut no senior officer capable of dealing with the crisis. There were in garrison two batteries of field artillery as well as one of the finest cavalry regiments in the British Army, the Carabiniers, and a battalion of Rifles. But fatal inaction paralysed the Europeans, and the mutinous soldiery marched unmolested to Delhi. Here the troops soon followed suit, murdered some of their officers, while others escaped, and a number of Europeans of all ages and both sexes was massacred in the

place and in the streets. An army was at once organised for the recovery of Delhi, while *Aroras* were collected in the Punjab which remained loyal under the strong hand of John Lawrence. The British columns having defeated the rebels who opposed them at Badli ki-Sarai arrived before Delhi on the 8th June and began the long siege which terminated with the capture of the city in the middle of September when the hero *Nicholson* fell in the hour of victory. Meanwhile the mutiny had spread to other corps of the Bengal Army. The native troops at Cawnpore rose on the 4th June, massacred the Europeans of the Garrison who surrendered on the 27th, while the women and children were butchered on the 15th July the day before Havelock's relieving column defeated the Nana and entered Cawnpore. There was mutiny at many other places during this period not only at stations north of the Jumna, but in Central India, and in Rajputana, where the disaffected troops of the Gwalior Contingent were stationed at Gwalior, Neemuch, Nasirabad and other cantonments. At Jhansi a general massacre took place when the Europeans unwisely surrendered to their pitiless foe. Throughout Bundelkhand and the Central Provinces the wilder spirits of the country rose and banded with the mutineers. With few exceptions the Bombay Army remained loyal as did the Madras Army and the Hyderabad Contingent, although there were some isolated outbreaks at Hyderabad and at Shorapur. But generally speaking the rebellion did not spread south of the Tapti River. On the 30th September the troops at Lucknow rose, and there began the long and glorious defence of the Residency by the beleaguered garrison under Sir Henry Lawrence. Lucknow was relieved by Havelock and Outram on the 27th September but the rebel hold on the defenders was not relinquished until Sir Colin Campbell advanced and drove off the mutineers with terrible slaughter two months later. Having relieved Lucknow Sir Colin Campbell marched to Cawnpore where General Windham had been driven into the intrenchments, and was with difficulty holding his own against the Gwalior Contingent under Tantia Topi. On the 6th December 1857 Cawnpore was relieved, and the rebels retired on Kalpi. It was not until 1858 that the small army under Sir Hugh Rose the most skilful and enterprising leader of those times marched through Central India relieving many beleaguered places, fighting many pitched battles and avenging the massacre of Jhansi in the storm and capture of that place at the capture of Kalpi, and at Gwalior where the Rani of Jhansi was killed at the head of her troops, and Rindia was restored to the capital from which he had been expelled.

Reorganisation after the Mutiny

When the country had been pacified, the Government of India was assumed by Queen Victoria, and the East India Company ceased to exist. The Company's European regiments were transferred to the crown and a regular system of relief of British regiments employed in India was instituted the charges being paid out of the Indian revenues. The Bengal Army had almost disappeared, and while a new army was raised in that Presidency, the Madras

and Bombay armies were also reorganised. Native artillery was abolished, with the exception of some mountain batteries and the field batteries of the Hyderabad Contingent. The officering of the reorganised armies was carried out by the organisation of a Staff Corps for each Presidency on which the officers were all borne on a general list and supplied to regiments and to the staff. On completion of the reorganisation in 1863 the armies had the following strength—

Bengal Army—19 Cavalry and 40 Infantry regiments.
 Madras Army—4 Cavalry and 40 Infantry regiments.
 Bombay Army—7 Cavalry and 30 Infantry regiments.
 Punjab Frontier Force—5 Cavalry and 12 Infantry regiments.
 Hyderabad Contingent—4 Cavalry and 6 Infantry regiments.
 Other Local Corps—2 Cavalry and 5 Infantry regiments.

The total strength amounted to 110,000 men and there were in India 85,000 British soldiers. The regiments were officered by a reduced cadre eventually fixed at eight British officers to each corps, except that the Hyderabad Contingent and other local corps had an establishment of four only. The promotion of officers was made dependent on length of service, 12 years to Captain, eventually reduced to nine years, 20 years to Major reduced to 18 years, and 30 years to Lieutenant-colonel. The Staff Corps system, which still continues in fact though not in name has the disadvantage that it entails the frequent transfer of officers from one corps to another.

Minor Campaigns.

During the period succeeding the mutiny until 1879, when the second Afghan War began, there were many minor campaigns including the Ambeyla expedition, the China War of 1860 and the Abyssinian War when Napier of Magdala, who had fought in the Sikh Wars and in the Mutiny, commanded the expeditionary army. There followed the Afghan War in which the leading figure was Lord Roberts. There were expeditions to Egypt and China, and various frontier campaigns, the most important of which was that on the North West Frontier in 1897 since when that turbulent country has been generally quiet. There were also the prolonged operations following on the annexation of Burma, several campaigns in East Africa and Somaliland, and the expedition to Lhasa. But since the Afghan War the Army of India, except that portion of the British garrison which was sent to South Africa, has had little severe fighting although engaged in many arduous enterprises.

Reforms.

The twenty years which began in 1856 witnessed many reforms and augmentations of the Indian Army due to preparations to resist the menace of the Russian advance towards India. The composition of the Army was improved by the elimination of unwieldy men from the ranks. In pursuance of this reform many Madras regiments were reduced and replaced by corps composed of more virile races. "Cass" troops and

companies were formed instead of men of every caste and creed being mingled in the ranks and in some cases class regiments were raised. But it is generally held that, it is better to form regiments of class companies and troops, although the class regiment has its advocates among those who hold that such an organisation facilitates segregation in case of trouble. In 1887 we find the British Army in India numbering about 74 000 and the Indian Army 163 000 men. In 1888 Indian battalions were grouped in threes each with a regimental centre, and reserves for the native army were instituted. These have been gradually augmented until the establishment numbers 25 000. In the following year Imperial Service troops to be placed at the disposal of the British Government in case of emergency were raised in Native States. These number 21 000 men officered by Indians and having Inspecting Officers furnished by British Officers of the Indian Army. In 1891 the Staff Corps of the three Presidencies were amalgamated, the first step in the abolition of the Presidency distinctions, furthered two years later by the abolition of the appointments of Commander in Chief of the Madras and Bombay Armies. While the fighting strength of the Army had been augmented and improved during all these years the administrative services had not been neglected. The Supply and Transport services were improved and the Ordnance and Military Works were reorganised, and measures were taken for the improvement of defence mobilisation and equipment. Changes were made in regimental organisation, and the pay and allowances of the troops were raised from time to time.

The number of British officers has been augmented at intervals. The establishment in the native infantry formerly consisted of a Commandant two Wing Commanders, and five Wing Officers. In 1900 the Double Company system was instituted, each pair of companies being placed under a Double Company Commander the Wing Commanders being abolished. The establishment of regiments now includes 13 or 14 British officers, squadrons and companies being commanded by native officers, of whom there are 16 in a regiment, *Resaldars* and *Subedars* commanding troops and companies, while *Jemadars* are their subalterns.

Lord Kitchener's Work.

The most momentous changes that have taken place in the Indian Army since the post mutiny reorganisation were carried out under the regime of Lord Kitchener who assumed the office of Commander in Chief at the end of 1902. When Lord Kitchener arrived in India, the Commander in Chief had only executive command of the Army with an Adjutant-General and a Quartermaster-General as his Chief Staff Officers. There was no General Staff, the Staff of the Army in India being divided between the departments of the Adjutant-General and Quartermaster-General. The administrative departments of the Army were under the Military Member of the Governor-General's Council, of which the Commander in Chief was an extraordinary member. The condition of affairs was not satisfactory. The proposals of the Commander in Chief regarding

measures involving expenditure had to be submitted to the Financial Department through the Military Department which had entire control also of the Supply and Transport, Ordnance Military Accounts, Remount and Military Works Departments. The consequence was frequent differences of opinion between the Military Department and Army Headquarters.

Lord Kitchener organised a General Staff and established a Staff College at Quetta for the training of officers in the requisite duties. A Chief of the Staff was appointed, and the proper division of the work of Staff Officers was made those of the General Staff being made responsible for the branch dealing with the Art of War including the training of troops, while routine and administrative duties were undertaken by officers of the Adjutant-General's and Quartermaster-General's Departments.

On arrival in India Lord Kitchener found that the military system, originally constituted on sound lines, had gradually departed from the intention of its founders, and much of the power properly belonging to the Commander in Chief had been usurped by the Military Department, while a succession of economical Finance Ministers had so cut down the military estimates and held the purse-strings so tightly that it was impossible to force through any costly measure for the defence of the country. The military chaos which was the slow growth of a hundred and fifty years of constantly changing conditions required remoulding into an orderly cosmos. The army was in many respects what it wanted of proper organisation for external war its ponderous and antiquated administrative system its faulty distribution in units scattered on no known strategical plan more suited to the circumstances of a bygone age when the country had only recently been conquered and troops had to be retained at remote and isolated stations to overawe the inhabitants. While the Commander in Chief was a strong and determined man with a genius for organisation the Viceroy was also a great personality holding strong convictions, and naturally a champion of the civil power. Lord Kitchener wished to remove the obstruction of the Military Department. Lord Curzon could brook no weakening of the power of the Civil Government. The question was not merely one of the abolition of a Department which had grown obsolete in its methods. It was a question of the status of the Chief Military Authority in the country.

Military Department Abolished.

On the recommendation of a Committee composed of Lord Roberts, Sir George White and Sir Edward Law the Military Department was abolished, and the Military Supply Department established in its place in 1906. Lord Curzon and Kitchener again came into conflict regarding the personnel of the new Department, and the former resigned. The Commander in Chief now set about the task of reform. He had since his arrival in India been studying the situation, reviewing the state of our military organisation, grasping its defects and contemplating its needs. The advance of Russia towards the Hindu Kush dramatized the situation as it had done for the best

part of a hundred years. Under the old chaotic system the modification scheme provided for the despatch of two armies, one through the Khyber, the other by way of Quetta to Kandahar. From the North-West alone, whence the conquering hordes of all the invaders whose march is recorded in history had poured from time immemorial, was the Empire of India subject to menace from without.

But under the system then existent the measures arranged for defence provided for a force of only four Divisions of all arms. This force was not only inadequate in numbers but in capacity for expansion. Its distribution and organisation were more suited for policing internal India than to contend with an external foe. The troops were distributed in Districts under generals whose commands were geographical in designation and in area. Here were no complete Army Corps, Divisions, and Brigades ready to take the field. In case of war the troops for the field army were to be drawn from all parts of India, the various units being sorted out into Brigades and Divisions on arrival at the base of operations, and provided with a scratch lot of generals and staff officers for the occasion.

Army Re-distributed.

It was in the reorganisation of the scattered and heterogeneous forces of the Indian Empire that Lord Kitchener's great work lay. Some steps had already been taken towards the abolition of those Presidency distinctions which formerly divided the Indian native forces into three armies supplemented by a congeries of local forces. But he found three armies each confined to its own geographical limits, beyond which its units and its personnel did not ordinarily proceed, or when they did, they carried the chains which linked them to their respective Presidencies. The units of the Indian Army were remembered a fruitful cause of confusion being thus eliminated. Presidency and local distinctions were abolished and a homogeneous army though composed of heterogeneous races, free to benefit by the experience of service in any part of India, was created. The experience of 1857 proved the measure of safety provided by the presidential system of three armies with nothing in common between them, but the new regime considered that the conditions of fifty years ago were obsolete and had been entirely changed by increased facilities and rapidity of communication throughout the Empire.

The whole army was formed into nine Divisions, exclusive of the Burma Division, each with its proper complement of the three arms under its General with staff complete. These Divisions were organised for war, each one could take the field intact, leaving behind sufficient troops for the maintenance of internal order. Arrangements were made for the organisation of supply and transport. The reserve was not sufficiently large to supply the wastage of war, it was expanded, the infantry reserves being augmented, while the cavalry was included in the system. Small and isolated stations were by degrees abandoned, the Divisions, or at least the Brigades, being associated with a due regard to strategic requirements and to the necessities of training, though some are extended over a

wide area of country. The nine divisions were distributed between two armies, each with its Commander, their heads resting on the main routes at Quetta and Peshawar.

The Military Supply Department with its Member on the Governor General's Council, was abolished in due course. An Army Department was created to deal with much of the business carried on by its predecessor with a Secretary in Charge. The Commander-in-Chief is now the only Military Member of Council and it is a question whether he has not a burthen greater than one man can bear. The recommendations of Lord Roberts's Committee have been ignored for that Committee recorded the opinion that, the concentration of the whole responsibility of Supply of the Army under one head if that head is to be the Commander-in-Chief would be opposed to all modern principles in regard to Armies. It was feared that the system now obtaining would lead to the diversion of too large a portion of the time of the Commander-in-Chief from his natural military duties, and it certainly appears that the functions and status of that high officer have largely altered.

Indian regiments are numbered consecutively the Infantry from 1 to 150 the cavalry from 1 to 80. They have subsidiary titles based upon their composition, their territorial origin or the names of distinguished officers with whom they were connected.

British troops are periodically relieved from England and the Colonies, regiments ordinarily being some fifteen years in India, where they are kept on a war footing by drafts sent from the regimental depots. Native troops consist of every warlike class, a great variety of races being found in the ranks. Gurkhas and Sikhs to a great extent are organised in class regiments. There are Rajputs of both Oudh and the United Provinces, Jats Dogra, Mahrattas, Pathans, Baluchis and Hazaras. Mahrattas are enlisted in Regiments of the old Bombay Army. Mahomedans from the south of India and from Hindustan are found in the ranks of many corps, and most of the Frontier tribes furnish their quotas.

The native officers generally rise from the ranks, but some are given direct commissions, although this system has not been largely adopted. The volunteers form a valuable and efficient body of men who would be most useful in emergency having a good knowledge of the use of arms and furnishing some of the best shots in the country.

The Military Police is largely composed of warlike races especially in Burma which is mainly garrisoned by these corps while in Central India the aboriginal Hills find employment in the ranks. These, however though a useful auxiliary do not form part of the Army, and serve under the orders of the Civil Government.

The Divisions of the Army are distributed as follows, their headquarters being at the Stations indicated.

Northern Army		Headquarters-Morree.
1st Division		Peshawar
2nd		Rawal Pindi
3rd	"	Lahore
7th	"	Meerut
8th	"	Lucknow

Indian Brigades.

Derajat Brigade	Dera Ismail Khan
Banna Brigade	Banna
Southern Army	Headquarters—Ootacamund.
4th Division	Quetta
5th "	Bombay
6th "	Poonah
8th "	Ootacamund
Burma Division	Mandalay

Services of the Sepoy Army

The history of the Army of India has now been traced since its inception down to the present time. The military history of the world presents no more remarkable spectacle than that of the great army of soldiers of fortune which, led by a few British officers, has carried our flag into every corner of the Eastern Hemisphere during the past hundred and fifty years. Soldiers by birth and breeding the sepoys of Hindustan and of the four quarters of India have served the Empire from Northern China to Ceylon from Egypt to the islands of the Eastern seas in Belgium and in France. In the conquest of India itself in seconding the valour of a handful of British soldiers they have borne a conspicuous part. The very men who opposed us so courageously in war—Sikhs, Gurkhas, Pathans of the North West Frontier Jats and Rajputs—have fought with no less valour in the ranks of our army. They sailed to the conquest of Bourbon, Mauritius and Java. With Cornwallis and Harris they traversed the passes which led them to Mysore and Seringapatam. Under Stringer Lawrence, Clive, Eyre, Coote, Lake and Wellesley they helped to oust the French from Southern India. The great theatre of war in which they fought was diversified by every physical feature and characterised by considerable varieties of climate. From Chitral to Makran our soldiers have followed in the footsteps of Alexander the Great. On the banks of the Hydaspes, on the very ground where the Macedonians defeated Porus two thousand years before they fought the battle of Chillianwala against the Sikhs, who have themselves since been among the bravest soldiers of our army. Every pass on the frontier traversed by the invaders of old contains the bones of brave men who have fallen in our service. The rude mountaineers of the frontier have eagerly entered the ranks of our army. Beyond the limits of India our soldiers have entered most of the capitals of the East. They have carried the flag to Cabul to Cairo to Lhasa, to Peking, to Ava and to Mandalay. Sepoys accompanied Baird and eighty years later Wolsley to the Nile. The dark page of the Mutiny is itself illumined by many gallant deeds performed in our service by the native soldiers of the Empire. Lucknow was not defended by Europeans alone—among the bravest men on the Ridge before Delhi were men of Indian races. In the glorious campaign in Central India 1858 the wings of Sir Hugh Rose's Army were composed of native cavalry, the mutiny veterans who tottered into the arena at the Coronation Durbar at Delhi had in their ranks many soldiers of native race. In 1914, when the Great War broke out, H. B. the Viceroy, speaking on behalf of the whole country, pledged every man, British and Indian, to the service of the

Raj and great force of all arms, estimated to reach 200,000 was despatched to the seat of war in France and Belgium, in East Africa, Egypt, Turkish Arabistan and Shantung. This is not the time to speak of the conduct of Indian troops on their first appearance on the continent of Europe, but in all encounters their courage and fortitude earned unstinted praise. (Q. India and the War.)

The Fighting Races

The fighting classes that contribute to the composition of the Indian Army are drawn mainly from the north of India. Of these there are 35 squadrons and 314 companies of Sikhs who thus furnish a great part of the strength of both Infantry and Cavalry. The Sikhs of whom an account has already been given are distributed throughout the Punjab. Mahomedans of various races contribute a still larger proportion to both arms. These are drawn both from the north and south of India as well as from beyond the frontier where the tribes contribute 50 companies to our Infantry while the Mussalmans and Pathans of India itself furnish between them 68 squadrons of Cavalry and 230 companies of Infantry. These are all excellent fighting men, hardy and warlike who have furnished soldiers to all the great powers of India for many hundreds of years. Large numbers of Mahomedans were to be found in the ranks of the Marhatta armies which opposed us during the early part of the last century. As Cavalry the Mahomedans are perhaps unequalled by any other race in the East being good horsemen and expert men at arms.

Next to these in point of numbers are the little Gurkhas of Nepal of whom 161 companies serve in the ranks of the Infantry. These, with the exception of one company in the Gurkhas are formed in twenty complete battalions. As fighters in the hills, the Gurkhas are unsurpassed even by the Pathans of the North West Frontier. Their proficiency as soldiers was first proved in the Nepal War of 1814, when they fought against us and has subsequently been displayed on many a field in the ranks of our army. The cheerful and steady discipline of the Gurkha has always rendered him a valuable soldier while his proficiency in the use of arms including the national *Kukri*, has made him terrible in war. While such a wonderful marcher in the hills the Gurkha soon tires in the plains.

The professional military caste of India from time immemorial has been the Rajput, who in habits not only Rajputana but the United Provinces and Oudh. Of fine physique and martial bearing, these warriors of Hindustan formed the backbone of the old Bengal Army and have sustained the British flag in every campaign in the East. Their high caste and consequent prejudices in no way interfere with their martial instincts and efficiency in war. This class now furnishes 10 squadrons of Cavalry and 100 companies of Infantry in our Army. Other classes which are found in the ranks are Jats, Dogras, Brahmans and Marhattas. The Jats are a fine and warlike race found in the Delhi and Rohilkhand districts and adjacent territory. It was these people who held out so bravely at Bharatpur and repelled three attacks delivered against their stronghold by Lord Lake's army in 1805. They now furnish us with 21 squadrons of

cavalry had 60 companies of infantry. Doctras are good and steady soldiers, found in the hill districts of Punjab. The ruling Chief of Kashmir is of this caste of which are 11 squadrons and 550 companies in the army. Brahmins are not now largely enlisted while the Mahatras famous as predatory horse in the historic past now compose 54 companies of infantry. They are chiefly recruited in the Deccan and the Konkan. Nor must we forget the Hill Rajputs of Garhwal good and gallant soldiers, who supply two battalions, and the low caste men of Madras so efficient as Pioneers and Sappers. Some 9,000 Madrasis are still in the ranks.

Improvements in Conditions.

Many improvements have been made in the pay of the soldier and the conditions of service. They are thus summarised in the Report on the Moral and Material Progress of India for the decade 1901-02 to 1911-12. The decade began with an increase of the pay of British troops due to the adoption in India of the proposals of the Home Government for an increase of 2d a day from the 1st April 1902. This involved an additional charge on Indian revenues of some £225,000 a year. In April 1904 a further increase of from 4d to 7d a day was given in the form of service pay. The whole of the service pay issued in India was in accordance with the decision of the Lord Chief Justice, acting as arbitrator between the Imperial and Indian Governments borne by the latter, the extra charge being thus raised to about £700,000 a year. From the 1st January 1909, in accordance with the intention announced in the Proclamation of the King Emperor on the fiftieth anniversary of the transfer of Government to the Crown, a general increase of pay for all ranks was granted to the Indian Army and arrangements were made for the free supply of fuel by Government at a cost of £437,000 a year. The increase was Rs. 3 a month for non-commissioned officers and men of the Milled Cavalry and Rs. 2 for other troops. Other measures that may be noticed were the raising of the kit-money granted on enlistment and the introduction of a boot allowance, the grant of free grass to Milled Cavalry when on the march or at manœuvres and of free passages by rail (within certain limits) for men called home on urgent private affairs—all introduced in 1906. The revision and improvement of the pension rules of the Native Army and the abolition of the punishment of flogging in time of peace, except for offences for which that punishment is permissible in civil life, in 1907-08 and a revision of the rates of pay of sergeants and subsergeants of the Indian Army and of regimental salaries, involving a considerable addition to the emoluments of the junior grades in 1909. Since 1910 considerable progress has been made with the improvement of the accommodation for the native troops. It had become obvious that this improvement was a matter of urgency in many cases and with the persistent rise in prices and wages considerable and durable buildings could no longer be constructed without a considerable increase of expenditure. In the new line, a sound type of construction has been adopted, and the work has been entrusted to the Mili-

tary Works Service instead of to regimental agency. Finally a bonus of half a month's pay was granted to all non-commissioned officers, and men and reservists of both the British and Indian Armies, and to the equivalent ranks of the Royal Indian Marine, at the Coronation Durbar in 1911 at a cost of about £168,000. On the occasion of the Coronation Durbar of 1902, a money grant to be spent at the discretion of officers commanding, was made to all British and native troops.

Reserves

The Indian Army Reserve dates from 1886. Under existing arrangements, it consists of men with not less than three years' colour service. Men passing into the Reserve still belong to their respective regiments, and come up for two months' training once in two years. In 1904 when the strength of the Reserve was about 24,500 men it was decided to raise it gradually to 50,000 men reducing the reserve pay from Rs. 3 to Rs. 2 a month and also to form an Indian Cavalry Reserve by extending the system to Milled Cavalry regiments. Reservists obtain a pension after 25 years' total service. There is a body of reserve officers whose numbers were largely increased soon after the outbreak of the war.

Reserve of Officers.—For some years there has been entertained what was called The Indian Army Reserve of Officers—a small body of trained officers who would be available to replace the casualties amongst the British officers serving with the Indian troops in time of war. This branch of the service was hitherto grievously neglected, the conditions of service were unattractive, the prospects of promotion were practically null, and the military authorities preferred to rely on the expedient of multiplying the number of British officers serving with Indian troops in order to meet casualties rather than to train up an effective reserve. This policy tested by the war was found wanting. The casualties amongst the British officers with the Indian regiments were very large indeed; these regiments lost their initiative when deprived of the officers on whom they had been taught to rely and it was impossible to make the great gap good from the ordinary officer class because of their lack of knowledge of the Indian languages and Indian conditions. An appeal for recruits for the Indian Army Reserve of Officers met with a very ready response. The first enrolments reached the substantial figure of fourteen hundred, a very large proportion of whom were drawn from the Volunteer Officers or from the ranks of special corps like the Light Horse who are ordinarily recruited from the officer class. The officers selected were put through a rapid course with British and Indian regiments, made to pass a language test, and when efficient were sent to serve with the Indian regiments at the front. They have done excellent service and have suffered many casualties indeed, without this reinforcement of officers specially acquainted with Indian conditions, the efficiency of the Indian Regiments could not have been maintained. It is understood that the numbers are now being raised to two thousand.

The Imperial Service Troops.

The voluntary movement towards co-operation in the task of Imperial defence that led to the formation of the force of Imperial Service Troops was initiated in 1887 by an offer made by the Nizam of Hyderabad whose example was at once followed by a number of the leading Native Princes. The troops which are under regular inspection by British Officers though available for Imperial service when placed at the disposal of the British Government by their Rulers belong to the States and are recruited from their subjects. Their armament is the same as that of the Native Army and in training discipline and efficiency they have reached a high standard of excellence. They have done good service on the North West Frontier and also in China and Somaliland. At the beginning of the decade (1901-02 to 1911-12) twenty three States between them supplied a total of over 16,000 men. Some additional offers of contingents have since been accepted and the total strength approximately 22,211, towards which twenty nine States contributed. The total included some 10,000 Infantry, and 7,500 cavalry while transport and camel corps contributed 2,700 and 1,000 men respectively. Sappers also numbered about 700. Gwalior contributes nearly 4,000 men, and Kashmir over 3,500. Patiala, Hyderabad and Alwar contribute over 1,000 each. On the outbreak of the war practically the whole body of Imperial Service Troops were immediately placed at the unfettered service of the King Emperor. Many of these offers were gratefully accepted and large bodies of Imperial Service Troops proceeded to one or other of the theatres of the war (Q. V. India and the War).

Volunteers

The Volunteers of India may be classed under the head of British forces. They include foot and mounted Rifle regiments, light horse and garrison artillery with some electrical engineers and other specialised companies. Their role is the defence of ports, railways, cantonments and civil stations; a number of rifle corps are recruited from railway employees, forming valuable bodies for the defence of their respective railways.

On the outbreak of the war a general desire was expressed that a Volunteer Brigade should be raised for active service. It was decided that the place of the volunteer corps was in India. Considerable numbers were however sent to the front either in motor cyclist or machine gun detachments and a large number joined the Indian Army Reserve of Officers. According to the latest official returns the total number of volunteers in India was 43,671. There was however a large accession of strength after the outbreak of the war and the vote for the Force was larger by Rs 14 lakhs. The Force must now be over fifty thousand strong and its efficiency has markedly improved.

The Imperial Cadet Corps

The Imperial Cadet Corps was founded in 1901 with the object of providing military training for the sons of ruling and noble families. The Corps consists of about 20 young men of noble birth who have been educated at the Civil Colleges. The course of instruction lasts between two and three years and the cadets are taught military exercises and military science. Its headquarters are at Dehra Dun.

MILITARY FLYING SCHOOL.

The Government of India sanctioned the establishment of an India Central Flying School at Allahpur with effect from the 1st October 1913, but the work of the school has been suspended during the war. The object of this school is to gain experience in aviation under Indian conditions with a view to its ultimate expansion as a training establishment. The Commandant has entire control of the school under the direct orders of Army Headquarters. The school consists of a commandant and three flying officers with the necessary medical and subordinate personnel. The British and Indian subordinate staff consists of civilians only engaged on contract for specified periods.

Conditions of appointment.—The qualifying conditions of appointment for the commandant and flying officers are as follows:—

(1) To hold a Royal Aero Club's pilot certificate, (2) to be recommended by his Commanding officer, (3) medical fitness (as stated below), (4) not less than two years service (British service) three years service (Indian Army). In addition Indian Army officers must have qualified for final retention, (5) not above the rank of Captain, (6) a natural bent for the mechanical, (7) to be unmarried.

Officers are appointed to the staff of the school for a period of four years from the date of joining, the appointment being probationary

for the first six months they will be seconded in their regiments. An officer who is found at any time to be unfit for the duties of the appointment will be required to rejoin his Regiment. If injured on flying duty the Commandant and flying officers will be eligible for gratuities and pensions under the conditions and at the rates laid down in Army Regulations, India Volume 1 Paragraph 748 et seq. For officers who have been wounded in action in the event of death within a season (as the result of injuries so received) pensions, etc. may be awarded under the conditions applicable to the case of officers killed in action or dying of wounds received in action.

Equipment.—The Maharaja of Rewah has generously presented an aeroplane to the Central Flying School. This is of Royal Aircraft factory design and has a 70 h p. Renault air cooled motor giving a machine speed of 72 miles per hour. Other machines consist of two 80 h p. Gnomes and two 100 h p. 1A man biplanes (70 h p. Renault). The school possesses a portable hangar which will remain erected on the aerodrome until permanent sheds are ready for occupation. The portable hangar will then become available for housing machines. The aerodrome at Allahpur is an area roughly of 400 acres. The first flights were made on February 24 1914, when a Rewah aeroplane was used and each officer flew in turn for a short time.

Staff of the school.—The staff of the Indian Central Flying School normally consists of—1 Commandant at Rs. 1,200 per mensem and 3 flying officers at Rs. 300 each per mensem.

British Subordinates 1 engineer, 1 sail-maker 2 machinists, 2 riggers, and 1 repair shop mechanic
Indian Subordinates 1 carpenter 1 sail-maker 6 fitters, 2 riggers, 2 repair shop mechanics, and 1 storekeeper

* STRENGTH OF THE ARMY

The sanctioned establishment of the army in India for 1913-14 and its actual strength on 1st April 1914 were as follows—

	Sanctioned Establishment.	Actual Strength.
Troops under the orders of the Commander-in-Chief in India		
British officers	5,017	5,001
British warrant and non-commissioned officers and men	73,323	73,165
Indian officers, non-commissioned officers, and men	160,313	150,574
Troops not under the orders of the Commander-in-Chief		
British officers	9	9
Indian officers, non-commissioned officers, and men	24,466	23,077
Total 1913-14	263,128	251,816
" 1912-13	263,555	251,751

In 1913-14 seven battalions of Indian infantry and one battery of Indian artillery were employed in the colonies and in China. One mountain battery of Royal Garrison artillery was employed in Egypt. There was an Indian contingent in Somaliland, and detachments of infantry and cavalry were employed in Persia.

The sanctioned establishment of the Native army reserve was 34,046 and its actual strength on 1st April 1914 was 34,290 as against 33,712 on 1st April 1913.

The number of Volunteers in the whole of India on 1st April was as under—

	1913.	1914
Enrolled strength	41,083	41,923
Efficients	33,830	39,240
Reservists	3,178	2,955

The net expenditure on the army (exclusive of Military Works and Special Defence Works) in 1913-14 as compared with that in 1912-13 was as follows—

	1912-13	1913-14
	£	£
Effective charges	15,231,375	15,462,240
Non-effective charges	3,117,343	3,123,493
Total	18,348,723	18,585,738

Health of the British and Indian Armies.—During 1913 the death rate in the British Army in India was the lowest on record, but there was a rise in the admission rate owing to prevalence of malaria, sandfly fever, and dengue and to the admission of ear diseases, which in previous years would have been treated chiefly in barracks. There was a striking improvement as regards enteric. Over 93 per cent of the troops have been inoculated. Besides inoculation, the elimination of ear risks and improved sanitary conditions are the causes of the decline of enteric. Malaria continues to be the dominating cause of inefficiency in European troops in India; the admission rate rose from 82.4 to 125.5 per mille, owing to epidemics in northern India. The systematic survey of stations where malaria prevails has been most successful where under-

taken, and further measures of this kind are urgently called for. Admissions for dysentery rose slightly and admissions for ear diseases more than doubled owing to a change in practice. Venereal disease for many years has shown an almost uninterrupted decline and in 1913 the admission rate per mille (52.5) was the lowest yet recorded. Invalidings home showed an increase.

For the Indian Army both death rate and admission rate were the lowest on record. The chief cause of sickness was, as usual, malaria, the admission rate from which rose from 89 to 100.4 per mille, the increase being confined to the northern stations. Pyrexia and respiratory diseases and sandfly fever were also important causes of sickness. Pneumonia, as usual, was the chief cause of mortality. Tubercle of the lungs, though it is being reduced, still claims

a high mortality especially among Gorkhas. Anti-enteric inoculation is making progress among Indian troops, over 13,000 having been inoculated.

Marine.—The net expenditure on marine services amounted to £266,500 in 1914-15 as against £423,398 in 1913-14. In this amount are included the cost of the Royal Indian Marine and the contribution towards the expenses of His Majesty's ships employed in the Indian

On the 31st March 1915 the Royal Indian Marine consisted of three troopships and six other sea-going vessels, three inland vessels, three flats, and a number of small steamers, launches, &c. There was an establishment of 105 executive officers, 85 engineer officers, 64 warrant officers, and 12 assistant surgeons of the Indian Subordinate Medical Department and the native crews of the vessels (coastmen, artificers and others) numbered, in all, about 2,223 men.

EXPENDITURE ON THE MILITARY SERVICES

	Accounts 1911-1912.	Accounts, 1912-1913.	Accounts, 1913-1914.	Revised, 1914-1915.	1915-1916 Budget
Expenditure.	Rs.	Rs.	Rs.	Rs.	Rs.
INDIA—					
<i>Effective Services—</i>					
Administration	60 28 994	69 75 270	71 56 430	63,44 000	58,58 960
Military Accounts	29 15 540	29 1, 887	30 16 241	28 09 000	24 94 870
Regimental Pay etc.	12 45 65 223	12,20 0' 2' 1	12,23,80 0' 1	10 86 00 000	8,22 51 710
Supply and Transport	9 01,50 68	3 36 02,699	3 42 78 307	3,14 38,000	2,60,24 920
Veterinary	4 93 387	5 00 023	5 02 617	4 07 000	3,28,000
Clothing	12,58 800	15 68 321	19 26 000	34 72 000	27 34 290
Remounts	47 13,882	49 28 484	46 52 456	54 53 000	48 74,970
Medical Services	57 83 758	58 08 320	57 50 474	53 19 000	42,55 040
Medical Stores	5 65 779	5 08 157	6 51 826	5 21 000	5 3, 610
Ordnance	88 17 906	98 54 097	93 37 161	1 06 43 000	80,28,340
Ecclesiastical	4 17 979	4 30 154	4 27 183	4 43 000	4 12,480
Education	12 52,212	12,41 097	13,47 613	10 40 100	5 97 850
Compensation for food, etc.	48 90 685	47 56 098	62,81 040	5, 10 000	48,37 000
Miscellaneous Services	80 22 432	31 27 192	23 42 036	3 11 29 000	7 37 71 660
Hutting	3 04 955	6 08 816	210 0' 5	2 06 000	2,00 000
Conveyance by road, river and sea.	874 856	13 93 814	8 47 034	7 99 000	7 51 600
Conveyance by rail	48 35 239	38 62 887	42,48 200	43 43 000	37 74,770
Cantonments	19 63 144	14 75 015	24 2 498	16 09 000	18 87 550
Unadjusted Expenditure	—1 52,782	—6 79 193	1 29 023		
TOTAL RS.	20 84 03,072	20 62,37 820	20 85 59 016	22 02 81 000	22,19 18 000
<i>Non effective Services—</i>					
	1 04 8, 675	1 07,43 291	1 09 57 420	1 10 41 000	1 55 87,000
TOTAL INDIA RS	21 88 89,647	21 69,81,120	21 95 17,345	23 13,28,000	23,75,05,000
Equivalent in sterling £	14 592 543	14 465,408	14,034,480	15 421 400	15 853 600

EXPENDITURE ON THE MILITARY SERVICES.

	Accounts, 1911-1912.	Accounts 1912-1913.	Accounts, 1913-14.	Revised, 1914-1915	1915-1916 Budget.
	£	£	£		£
ENGLAND—					
<i>Effective Services—</i>					
Payments to War Office for British Forces	914 000	941 648	917 237	990 700	990 700
Furlough allowances etc. on British & on Consolidated Clothing Allowances of British soldiers	135 990	141 406	145 302	81 000	4 000
Furlough allowances, Indian service.	48 480	455	412	20 800	20 400
Indian Troop service Other heads	363 216	355 676	361 400	265 000	182,000
Clothing Stores	275 947	266 421	298 777	88 900	4,000
Ordnance and Miscellaneous stores.	61 824	107,854	115,919	144 000	75,000
Medical stores	58 670	52,712	92,665	123 000	98 300
Supply and Transport stores.	340 180	506,007	500 328	510,200	403 000
Military Farms Stores	104 612	95 980	94 406	98 000	60 900
Operations in Persian Gulf (Stores)	51,005	52,879	44 102	70,500	116 700
Stores taken to India with Troops.	60 620	43,848	11,204	10 800	13 900
	36,825	24 409	39 373	18 600	
	17 080			19 100	18,200
TOTAL	£ 2,439 364	2,589 430	2,538 876	2,836 800	1 907 100
<i>Non-effective Services—</i>					
Payments to War Office for British Forces.	898 331	919 183	927 029	946,000	650 000
Pensions Indian Service	1 431 735	1 425,242	1,407 596	1 375 000	1 385 000
Other heads	174,473	177 263	181 245	203 000	218 000
TOTAL	£ 2,504 539	2,521 688	2 515 873	2,524,000	2,253 000
TOTAL ENGLAND	£ 4 943,903	5 111 118	5 154,749	4 901 800	4 140,100
TOTAL EXPENDITURE	£ 19 536,546	19 576,526	19 789 239	20,306 900	19 973 700
RECEIPTS.					
	Rs.	Rs.	Rs.	Rs.	Rs.
India	1,04 91 425	1 33,60 617	1 27 94,798	1 19 46 000	1 11 96 000
	£	£	£	£	£
Equivalent in sterling & England	699 425	890,708	852,320	796,400	746 400
	479 938	337 095	351,186	363,100	328,700
TOTAL RECEIPTS	£ 1,170 366	1 227 803	1 203,506	1,151 500	1,075,100
TOTAL NET EXPENDITURE	£ 18,567,180	18,348,723	18,585,733	19 174,700	18,898,600

ESTABLISHED STRENGTH OF BRITISH AND INDIAN ARMIES IN BRITISH INDIA
(exclusive of Indian Artificers and Followers) for the year 1914-15.

CORPS	Northern Army			Southern Army			Total.		
	Com m issioned Officers	Warrant & Non-Commissioned Officers & Privates	Total.	Com m issioned Officers	Warrant & Non-Commissioned Officers & Privates	Total	Com m issioned Officers	Warrant & Non-Commissioned Officers & Privates	Total
BRITISH ARMY									
Royal Artillery	292	7 081	7 373	287	7 509	7 796	579	13,100	13 769
Cavalry	182	3 594	3 776	81	1 797	1 878	263	5 391	5 654
Royal Engineers	204	9	213	100	6	111	300	15	324
Infantry	784	28 164	28 948	672	24 126	24 798	1 456	52 290	53 746
Invalid & Veteran Establishment.									
Indian Army General List Infantry	71		71	30		30	101		101
General Officer unemployed	1		1				1		1
Total, British Army	1,514	32,448	40,962	1,170	33,438	34,613	2,689	72,886	75,575

CORPS	British.		Indian		British		Indian		British		Indian	
	Officers	Warrant and N.C.O.	Officers N.C.O. and Men		Officers	Warrant and N.C.O.	Officers N.C.O. and Men		Officers	Warrant and N.C.O.	Officers N.C.O. and Men	
INDIAN ARMY												
Artillery	5		6 440	11		3 603	68				10 043	
Body Guards	4		280	4		142	8				422	
Cavalry	372		15 440	211		8 810	583				24 260	
Sappers & Miner	34	129	1 071	58	212	8 183	87	841			5 154	
Infantry	1 095		63 688	940		54 304	2 026				119 992	
Total, Indian Army	1 562	129	89 819	1 209	212	70 042	2,771	841			159 861	
Imperial Service Troops			9,077			11 992					21 069	
Indian Reserve												
Artillery			1 363			565					1 928	
Cavalry			1 314			439					1,803	
Sappers & Miners			686			491					1 177	
Infantry			10,880			11,836					21,216	
Volunteers—												
Efficients	818	17 799		781	20 128		1,549	37,921				
Reservists	19	1,521		12	1,538		31	3,064				

THE EAST INDIES SQUADRON

Since 1866 a squadron of the Royal Navy known as the East Indies Squadron has been maintained in Indian waters. It has naturally varied in strength from time to time, and of late years in particular there have been several changes in its composition the most recent being in the direction of strengthening it, owing to the disappearance of strength in the other squadrons of the Eastern Fleet. In 1906 the squadron consisted of one second class and three smaller cruisers and four sloops or gunboats. In 1906 when the policy of withdrawal from Eastern waters was inaugurated, it consisted of two second class and two third class cruisers, and remained at this strength until 1910 when one second class cruiser was withdrawn and two smaller vessels substituted and three cruisers were lent from the Mediterranean to assist in the suppression of the arms traffic in the Gulf. By 1913 the position of the East Indies squadron had considerably improved. The battleship *Swift* sure had taken the place of the second class cruiser which had been flagship and a modern second class cruiser replaced the *Perseus*. This is apparently part of the scheme for constituting a Pacific Fleet of three "units," one unit being the Australian fleet which is ultimately to consist of 8 battle cruisers, 10 protected cruisers, 18 destroyers and 12 submarines, but up to the present it has completed, or nearly so one battle cruiser three others, six destroyers and three submarines. The other two "units" will be the squadrons stationed in China and Indian waters respectively.

The East Indies Squadron at the beginning of the war consisted of the following ships (later details are not published in the Navy List):—

Flagship *Swiftsure*, battleship, 11,800 tons.

Commander-in-Chief (Vacant) Captain, Cecil Maxwell Lefroy

Dartmouth cruiser, 5,250 tons Captain, Judge D'Arcy

Fox, cruiser, 4,050 tons Captain F. W. Caulfield.

Alert, sloop, 600 tons Lieut. A. Johnstone.

Esperanza sloop 1,070 tons. Commander, W. Nunn.

Odin sloop 1,070 tons. Commander C. R. Watson.

Contributions to the Navy

A cock and bull story to the effect that the Native Chiefs of India were going to present three super Dreadnoughts and nine first class cruisers to the Imperial Navy, was started in November 1912, and directed public attention to the question whether India was paying an adequate amount for the services rendered by the Navy. Even the *Naval Annual* (1913 edition) took part in the agitation for an increased contribution by India. It says— "Rumour has been persistent regarding the attitude of India towards the Navy. Some exaggerated statements were published during the year but nothing definite has been done. This is the more surprising when it is remembered that, although the seaborne commerce of India totals 115 millions sterling the annual contribution to the Navy is only £100,000 out of a total revenue of 82 millions sterling. It is true that very heavy expenditure is involved in the military forces of India but the commerce, coast protection and transporting of troops is dependent upon Britain's sea power. There is a prospect that India will voluntarily follow the example of the self-governing Dominions."

The proportion of contributions from the overseas Dominions towards naval expenditure is shown in the following table issued with the last Navy Estimates that gave details—

Received from	Nature of Service	Total
India	Maintenance of His Majesty's Ships in Indian Waters	£ 100,000
	Indian Troop Service (on account of work performed by the Admiralty)	3,400
	Repayment on account of services rendered by His Majesty's Ships engaged in the suppression of the Arms Traffic in the Persian Gulf	64,000
Australian Commonwealth Dominion of Canada.	Contributions on account of liability for Retired Pay of Officers and Pensions of Men lent from the Royal Navy	10,800
Australian Commonwealth Do.	Survey of the N. W. Coast of Australia	7,500
Dominion of New Zealand	Maintenance of an Australian Squadron and of a branch of the Royal Navy Reserve	41,600
	Maintenance of an Australian Squadron and of the Imperial Navy generally also of a branch of the Royal Naval Reserve	100,000
Union of South Africa	General maintenance of the Navy	85,000
Newfoundland	Maintenance of a branch of the Royal Naval Reserve	2,900
	Total	415,900

India's Marine Expenditure.

That table, however, only shows a part of the expenditure made by India on the Marine. Since 1869 India has paid a contribution of varying amounts to the Imperial Government in consideration of services performed by the Royal Navy. Under existing arrangements, which date from 1896-7, the subsidy of £100,000 a year, already referred to, is paid for the upkeep of certain ships of the East India Squadron which may not be employed beyond prescribed limits, except with the consent of the Government of India. The chief heads of marine expenditure, which amounts to nearly £490,000 annually are shown below. Charges and receipts in respect of pilotage are no longer brought to account under this head.

		Accounts 1912-13.	Accounts, 1913-14.	1914-15 Revised.	1915-16 Budget.
EXPENDITURE					
India	R.	38,86,942	38,85,541	38,04,000	35,23,000
Equivalent in sterling England	£	255,796	255,738	240,000	234,000
	£	224,132	257,142	215,500	415,500
Total	£	479,923	512,845	455,700	650,500
RECEIPTS					
India	R.	13,15,039	13,43,120	13,38,000	10,22,000
Equivalent in sterling England	£	87,669	89,542	89,200	68,200
	£				
Total	£	87,669	89,542	89,200	68,200
NET EXPENDITURE	£	392,259	423,303	366,500	582,300

ROYAL INDIAN MARINE.

The Royal Indian Marine (The Sea Service under the Government of India) traces its origin so far back as 1612 when the East India Company stationed at Surat found that it was necessary to provide themselves with armed vessels to protect their commerce and settlements from the Dutch or Portuguese and from the pirates which infested the Indian coasts. The first two ships, the *Dragon* and *Roseander* (or *Oslander*) were despatched from England in 1612 under a Captain Best and since those days under slightly varying titles and of various strengths the Government in India have always maintained a sea service.

The periods and titles have been as follows.—

Hon E I Co.'s Marine	1612—1686
Bombay	1686—1830
Indian Navy	1830—1863
Bombay Marine	1863—1877
H. M. Indian Marine	1877—1892

Royal Indian Marine 1892, Present day

The Marine has always been most closely connected with Bombay, and in 1605 when

the E India Co took over Bombay Captain Young of the Marine was appointed Deputy Governor. From then until 1877 the Marine was under the Government of Bombay and although from that date all the Marine establishments were amalgamated into an Imperial Marine under the Government of India, Bombay has continued to be the headquarters and the official residence of the Director.

War Service of the Marine.

1612-1717 Continuous wars against Dutch, Portuguese and Pirates for supremacy of West Coast of India. 1744 War with France, capture of Chanderagore, and French ship *Indienne*. In 1756 capture of Castle of Gombay. 1774 Maratha War capture of Tannah. Latter part of the eighteenth century, war with French and Dutch, capture of Pondicherry, Trincomalee, Jambapatam, Colombo etc. 1801 Egyptian campaign under Sir Ralph Abercrombie. 1803 War with France. 1810 Taking of Mauritius and capture of French ship in Port Louis. Early part of the nineteenth century suppression of Jowahar P. rates in the Persian Gulf. 1811 Conquest of

Tam. 1818 Expedition against Sultan of
 Sambar 1817-18 Malabar War, capture
 of Forts at Severndroog. 1819 Expedition
 to exterminate piracy in the Persian Gulf.
 1820 Capture of Mocha. 1821 Expedition
 against the Beni-koo-Ali Arabs. 1824 26 First
 Burma War. 1837 Blockade of Berbera and
 Somali Coast. 1835 Defeat of Beni Yasi
 1838 Expedition to Afghanistan and
 capture of Karachi. 1838 Capture of Aden
 1840-42 War in China. 1843 Scinde War
 Battle of Meeanee, capture of Hyderabad.
 1845-46 Maori war in New Zealand. 1848-49
 War in Punjab siege of Mooltan. 1852 Second
 Burma War, Capture of Rangoon. Martaban
 Basmah, Prome and Pegu. 1855 Persian
 War capture of Bushire, Muhammerah and
 Ahwaz. 1856-57 War in China. 1857-59
 The Indian Mutiny. 1859 Capture of the
 Island of Bevi. 1860 China War, Canton
 Taku Forts, Peking and Peking. 1871 Abyssinian
 War. 1882 Egyptian Campaign. 1885
 Egyptian Campaign. 1885 Third Burma War.
 1890 Chin Lohai Expedition. 1896 Suakin
 Expedition. 1897 Expedition to Imbrie
 Mombasa E. Africa. 1898-1902 S African

War. 1900-01 Boxer Rebellion in China,
 relief of Peking. 1902-04 Somaliland Expedition

Personnel, 1915.

DIRECTOR.

Captain Walter Lumsden, D.V.O. D.L.C. R.N.
 A.D.C. Office Residence Government Dock
 yard, Bombay

(The Director R.I.M. advises the Govern-
 ment of India on all maritime matters)

DEPUTY DIRECTOR.

Captain E. J. C. Hordern, R.I.M., Off Resi-
 dence Government Dockyard, Bombay

ASSISTANT DIRECTOR.

Captain E. G. Mills, R.I.M. Off Residence
 Marine House Calcutta.

OFFICERS

Commanders	83
Lieutenants and Sub-Lieutenants	72
Chief Engineers	10
Engineers and Assistant Engineers	75

WARRANT OFFICERS

Gunners	24
Clerks	20
Engine Drivers	20

PRIFY OFFICERS AND MEN

2,225 Recruited from the Ratnagiri District of the Bombay Presidency

SHIPS

Troopships	R I M. S.	Dufferin*	6315 tons	10191	Horse Power	
		Hardinge*	5467	9386		
		Northbrook	5045	7249		
Light-house Tender	"	Nearchu	491	703		Persian G
Station Ship	"	Dalhousie*	1524	2302	"	Aden
	"	Mayo	1125	2157	"	Bangoon
Despatch Vessel	"	Lawrence*	903	1277		Persian G
Special Service	"	Minto*	960	2,025		Persian Gulf
Surveying Ship	"	Investigator	1014	1500		
	"	Palinurus	290	466		
River Steamer	"	Comet*	182	190		Baghdad
	"	Bhamo	172	250		Burma
	"	Sladen	270	360		

* On Special Service

In addition to the above are 39 launches composed of special service launches, target
 towing tugs, powder boats, military service launches, etc.

Dockyards.

There are two Royal Indian Marine Dock
 yards at Bombay and at Calcutta, the former
 being the more important. There are 5 graving
 docks and a wet basin at Bombay together
 with factories which enable the whole of the
 repairs for the ships of the East India Squadron
 of the Royal Navy and for the ships of the
 Royal Indian Marine and local Governments to
 be carried out, and tugs, lightships, pilot
 boats, launches etc constructed

PRINCIPAL OFFICERS, BOMBAY DOCK YARD

R. I. M. Officers.

Staff Officer Comdr C. W. Ramsey, R.I.M.
 Inspector of Machinery, Chief Engineer
 T. H. Kalgutkar, R.I.M.

CIVILIAN OFFICERS

Chief Constructor Mr. T. Avery
 Constructor Mr. D. H. North.

PRINCIPAL OFFICERS CALCUTTA DOCKYARD

R. I. M. Officers

Staff Officer Commander H. Morland, R.I.M.
 Inspector of Machinery Chief Engineer
 J. Lush, R.I.M.

CIVIL OFFICERS.

Constructor Mr. G. P. Newnham
 Appointments.

In addition to the regular appointments in
 the ships of the Royal Indian Marine, and in
 the R. I. M. Dockyards, the following appoint-
 ments under local Governments are held by
 officers in the Royal Indian Marine —

<p>BOMBAY Port Officer Assistant Port Officer, 1st Engineer and Ship Wright Surveyor and 2nd and 3rd Engineers and shipwright surveyors to the Government of Bombay</p>	<p>Port Officer Akyab Mouleim and Basco Marine Transport Officer Mandalay, and Super Intending Engineer Mandalay</p>
<p>CALCUTTA Port Officer, Deputy Port Officer and Assistant Port Officer 2nd and 3rd Engineers and shipwright surveyors to the Government of Bengal</p>	<p>MADRAS. Presidency Port Officer and Deputy Conservator of the Port</p>
<p>BURMA Principal Port Officer Burma First Assistant Port Officer Rangoon Engineer and shipwright surveyor to Government of Burma. Assistant. Do do do do</p>	<p>CHITTAGONG Port Officer and Engineer and Shipwright Surveyor</p> <p>ADEN—Port Officer</p> <p>KARACHI—Port Officer</p> <p>PORT BLAIR—Engineer and Harbour Master</p>

Expenditure

Recent expenditure on the Royal Indian Marine under all heads has been —

1913 14	£ 512 14s
1914-15	£ 455 700

Against this were receipts from Dockyards for outside work done and from sales of vessels stores etc which amounted in 1913 14 to £ 89 512 and in 1914 15 to £ 89,200 so that the actual cost to the State for the whole service was —

1913 1914	£ 423 40s
1914-1915	£ 368 500
1915-1916 (t. inst.)	£ 382 200

THE NICHOLSON COMMITTEE.

The Earl of Crewe (Secretary of State for India) announced in the House of Lords on November 2, 1911 that the Government of India was conducting an inquiry into the various departments with the view of seeing what economies might be effected, and in that operation the Department of the Army was properly included but there would be no sacrifice of the safety of India or any risk in maintaining order. They had been asked by the Government that they should be assisted in making an inquiry into the whole military position by a Committee over which Field Marshal Sir W. Nicholson would preside.

The Committee met in Simla in May 1912 consisting of—F. M. Sir W. (afterwards Lord) Nicholson Lt General Sir Percy Lake, Chief of the General Staff in India, Lt Gen Sir Robert Seaton, Indian Army and Sir William Meyer, Chief Secretary to the Government of Madras (now Finance Member of Council). The Committee were instructed by their terms of reference—First, to carry out a comprehensive survey of the various circumstances requiring the use of Military Force which may arise out of the external or internal situation in India under the conditions which now exist or may probably arise during the next few years. Secondly

to consider and report on the numbers and constitution of the armed force which should be maintained in India to meet these obligations. Thirdly to consider and report whether any, and if so what measures for the reduction of Military expenditure are compatible with the efficient maintenance of that force. Its deliberations, which were private, continued until Lord Nicholson left India in April 1913, and it was announced in the House of Commons that the Committee's report would not be published. According to the Military correspondent of *The Times* (June 2 1913) it has "been known for some time past that a division of opinion has taken place within the Committee. Lord Nicholson and Sir William Meyer have signed what must be called by courtesy a majority report, because the distinguished Field-Marshal was given the invidious advantage of a casting vote. But Sir Percy Lake and Sir Robert Seaton are credited with having taken strong exception to many of the proposals made by their colleagues, and will doubtless draft a minority report." During a discussion in the Imperial Legislative Council on January 14th 1914, it was officially stated that the report would not be published. Any action on the conclusions of the Committee is necessarily held in abeyance during the War.

Indian Finance.

The India Budget statement for the year 1915-16 was awaited with absorbing interest for this was the first time for an official general election when Indian Finance had been affected by the shock of war, the previous occasion being after the Afghan War of 1837-78, when a grievous misallocation was made as to the cost of the operations. It is true that India, save during the depredations of the German cruiser *Ramden* on the merchant shipping, at the mouth of the Hugli and at the approaches to Ceylon, did not directly feel the impact of the war. But the whole recent course of Indian development has been on the lines of diminished isolation. Her currency system connects her with the money markets of London and the world. She relies for her industrial development largely on borrowing in London. Her prosperity is increasingly bound up every year with the growth of her foreign trade and this trade is with the whole world, and in exports largely with the continent of Europe. It was inevitable that almost every branch of Indian finance should be affected by the war. Then, as the Indian financial year does not close until the end of March, the financial statement embodied the experiences of eight months of war. Now the effects of the war may be summarised in a few words. Despite the inevitable dislocation the Government were able to provide for a judicious scale of expenditure, a moderate programme of capital works and to avoid all increase in taxation. This was done by slightly increasing the borrowing programme.

Financial Strength.—Fortunately the war found Indian finance in an exceptionally strong position. The Treasury balances in India and in England, were a million and a half sterling in advance of the estimated figure. The five crore loan raised in India had been a great success. The agricultural position, which is of vital importance to Indian finance, was exceptionally favourable. The actual gold holding of the Government of India was £2½ millions. The Presidency Banks were unusually well provided with funds. The only adverse condition was an unusually large stock of opium goods, one of the main heads of import, for shadowing a period of depression in this important branch of trade. On the whole it may be said that never were the economic and financial conditions in the country stronger.

Effects of the War.—The first effects of the war were a threatened break in exchange. The financial condition in India (see Currency) made exchange tentative, because of the large obligations—approximately £18 millions annually—which she has to meet in London. The exchange value of the rupee is maintained through the sale of what are called Reverse Bonds or sterling bills on London. Government support and their intention of selling a certain sterling weekly and this at once exerted a tranquillising effect on the situation. This to the value of £8½ millions were sold during the year. The next step was to husband the stock of gold. As sovereigns went to a premium, Government resorted to exchanging their rupees and Treasury notes, and £1½ millions were taken into Government stores in this manner to some gold altogether to private persons. Then

there was a rush by timid people to withdraw their Savings Banks deposits and to exchange currency notes for coin. Every facility was offered to both and the rush was stayed before it had produced embarrassing results. The total withdrawals from the Post Office Savings Banks amounted to 27 millions. As these deposits represent unfunded debt they had to be met out of current balances and for this purpose Government borrowed heavily from the Gold Standard Reserve (gs). The rush to exchange currency notes for coin was much shorter, and it was stemmed mainly by the wise policy of the Government in materially adding to the facilities for encashment. It was strong in these Provinces which had been most severely shaken by the failure of the mushroom Indian banks in 1913, namely, Bombay and the Punjab and in Burma. The net note circulation was reduced by seven crores of rupees (£4½ millions). First class securities showed remarkable stability and the decline in Government Paper was only three and a half rupees from the very high level it reached prior to the outbreak of the war. Indian obligations in London were met without difficulty owing to the fact that the Government of India had to meet large obligations for the Home Government in India, thus avoiding the necessity for transfers chiefly on military account. The Bank rate remained steady at between five and six per cent, and there was no shortage of money for those with solid credit. The internal trade was dislocated owing to the timidity of the Marwaris, who are the old fuddimen and many of whom fled to their homes in Rajputana and the export trade by the cessation of the greater part of the continental demand for great staples like jute, cotton and oilseeds. These are fully considered under Trade. But the total disturbance was far less than anyone had dared to hope. No moratorium was proclaimed and India met all demands from her own resources. With this brief summary of the special conditions we can proceed to consider the actual budget statement but for its full understanding it is necessary to indicate the general considerations which give a special character to Indian finance.

Financial Characteristics.—Three important facts have to be borne in mind in considering the finances of India. The first is that the Budget of the Government of India includes also the transactions of the Local Governments and that the revenues enjoyed by the latter are mainly derived from sources which they share with the Central Government. The principles underlying the relations of the supreme with the local governments are explained in the chapter dealing with this question. Generally speaking, certain heads of revenue are divided equally between the provinces and the Imperial Government, and certain heads are enjoyed entirely by the local governments. These vary with different provinces, but broadly it may be said that the divided heads are land revenue, excise, stamps, income-tax and the incomes from the large irrigation works. The Provincial Governments take the whole of the receipts under forests and registration, and the income of the

spending departments which they manage, such as ordinary public works, police, education, medical, courts and jails. The Government of India takes the whole of the revenue accruing from the export of opium, salt, customs, mint, railways, posts and telegraphs, military receipts and tribute from Native States. As regards the expenditure the Government of India are mainly responsible for the outlay relating to defence railways, posts and telegraphs, interest on debt and home charges and the provinces for charges connected with land revenue and general administration forests, police courts and jails, education and medical, whilst charges for irrigation and ordinary public works are common to both Imperial and Provincial. The second point is that a very large proportion of the revenue of the Government of India is derived not from taxation but from great State enterprises. It may be taken roughly that nearly two-thirds of the gross revenue is derived from sources other than taxation such as the land revenue, opium, forests, tribute from Native States, posts and telegraphs, railways and irrigation. The third point is that the Secretary of State for India enters into very large financial transactions on behalf of the Indian Government in order to meet what are gener-

cally known as the Home Charges. These amount now to some eighteen millions sterling and are met by the Secretary of State selling for gold drafts in rupees on the Indian Treasuries known as the Council Bills or telegraphic transfers. These Home Charges were for many years erroneously described as a drain on India. A large proportion however goes to defray the interest on the sterling debt and the outlay on the purchase of stores and railway materials which cannot be acquired in India. The only part of the Home Charges which by any stretch of the imagination can be termed a drain is that which stands for civil and military officers on leave or pension and here it is now recognised that India receives exceedingly good value for services rendered. One supplementary point which needs consideration is that the finances of India were artificially inflated for several years by the unusual opium receipts. The Government of India used to sell opium for export to China or the right of exporting opium to China and in view of the approaching end of this trade inflated prices were given for opium for export. This led to large windfall surpluses which for several years made the Government finances appear more prosperous than they really are.

Twelve Years Finance

We may now turn to the financial results of the last ten years in pounds sterling.

	Revenue	Expenditure	Surplus		Revenue	Expenditure	Surplus
	£	£	£		£	£	£
1904-5	71,100,000	67,700,000	3,400,000	1910-11	89,300,000	76,900,000	12,400,000
1905-6	70,800,000	68,700,000	2,100,000	1911-12	82,885,760	78,895,418	3,990,342
1906-7	73,100,000	71,500,000	1,600,000	1912-13	88,998,800	82,625,400	6,373,400
1907-8	71,900,000	70,700,000	1,200,000	1913-14	84,282,000	83,674,000	608,000
1908-9	69,800,000	73,500,000	*3,700,000	1914-15	80,156,000	85,115,000	*4,959,000
1909-10	74,600,000	74,000,000	600,000	1915-16	80,347,000	84,180,000	*3,833,000

* Deficit.

Provincial and Imperial.—At this stage one point should be made clear. According to the unexplained figures the Government of India deliberately budgetted for a deficit of nearly £4 millions. This arises from the intermingling of Provincial with Imperial finance. During the halcyon years when large surpluses accrued to the Treasury from the opium surpluses and the general prosperity of the country the Government did not reduce taxation but devoted these surpluses in part to the extinction of floating debt and the avoidance of further debt by financing public works from revenue, and in part to large grants to the Local Governments for ameliorative works chiefly in improving education and sanitation. But the spending of this money involved long preparation, with the result that the Local Government accumulated very large balances in excess of the normal. As these plans have matured, the Local Governments are ready to draw on the accumulations. It is estimated in the current year, for example, that they will reduce the

balances by no less than £1 million. If the provincial overdraft is excluded from the Budget estimate there is provided an Imperial deficit of £2.7 millions.

Summary.—To sum up, the Budget estimated for a deficit on the Imperial side of £2.8 millions and on the Local Governments being allowed to draw on their accumulated balances to the extent of £1 million. The aggregate estimated excess of expenditure over revenue was estimated at £3.8 millions. The Budget was based on the assumption that the war would last throughout the current financial year that is to say until the end of March 1916 and that there would be a deterioration of revenue throughout the year. On the other hand it was assumed that there would be some recovery and that the position under some basis, such as land revenue, would be marked. On the whole the Finance Member did not anticipate that there would be a marked difference as compared with the general results of 1914-15.

Budget Estimates for 1915-16.

The influence of provincial finance on the Imperial Budget is clearly set out in the following table —

	Revised 1914 15		
	Imperial.	Provincial.	Total.
Revenue	49 927	90 929	80 156
Expenditure	52 609	32 446	85 115
Deficit (—)	—2 742	—2 217	—4 959

	Budget 1915 1916		
	Imperial.	Provincial.	Total
Revenue	49 655	30 692	80 347
Expenditure	52 425	31 750	84 180
Deficit (—)	—2 770	—1 063	—3 833

Budget Features—Every Indian budget is based on the expectation of a normal monsoon. But very few Indian monsoons are normal, consequently the story of Indian finance is one of alternate surpluses and deficits. Close estimating being impossible, cautious estimates of revenue must be made. Again, it is no uncommon experience to find that the spending departments are not able to spend up to their estimates owing to the delay in obtaining material from England, shortage of labour or the necessity of maturing plans before work can be launched. Although the increased resourcefulness of the people, owing to the extension of industry and the large sums of money that have flowed into the country owing to the high prices of export crops, has introduced a steadying force into finance, budgeting is still largely what an ex-Finance Member described it, "a gamble in rain."

The Budget placed the total revenue for the year at £80 347 millions, as compared with £80 156 in the previous year. Of this the Imperial share was £49 655 millions as against £49 927. The principal decreases in revenue were under Customs, Salt and Railways. Under Customs (£377 000) because of the general decline in trade and the cessation of most of the continental trade induced by the war, under Salt (£315 000) because of the large payments of duty made on the eve of the expiry of the financial year in anticipation of an increase of duty and under Railways (£200 000) because of the general decline in trade. Against this it was estimated that there would be an increase in the Imperial share of the Land Revenue of £428 000, and under Opium, consequent on improved prices, of £362 000. The Provincial Revenues were placed

£463 000 higher almost entirely under the head of Land Revenue.

The expenditure was estimated at £80 347 millions as against £80 156 of this £49 655 millions was Imperial as compared with £49 927. There was an estimated saving of £244 000 under Military Services as all have the most urgent expenses were postponed until the end of the war and of £127 000 under Imperial Civil Works. On the other hand there was an increase of £520 000 to meet the interest charges on the borrowing programme which will be set out later.

The Provincial Expenditure was estimated at £31 756 millions or £901 000 less than in the previous year and £2 293 millions below the figure for the year before that. The reason for this very large discrepancy will be apparent from what has gone before where it was explained that the Imperial Government have made large grants from their opium and other surpluses to the Local Governments for expenditure on Education and Sanitation. These have not been fully utilised owing to the necessity of preparing programmes and plans and large sums are held to the credit of the Local Governments in the Imperial Balance. In the special circumstances of the war the Imperial Government might have put an embargo on all expenditure under this head but realising that this would mean an interruption of schemes already commenced with consequent waste and hardship, a compromise was struck. The Provincial Governments reduced their estimates by £1 070 million and the Imperial Government allowed them to draw on their accumulated balances to the extent of £1 million. On March 31st, 1916, it is estimated that the Provincial Balances will amount to £7 millions.

Education and Sanitation.

In the Chapter on Finance in the Indian Year Book for 1915 (p. 163) figures were given showing the remarkable progress made in education, medical relief, and sanitation since the year 1881-12, when the Government of India began to give grants from their surpluses for these

purposes. These figures showed that the expenditure under Education and Medical had practically doubled and that under the head of Civil Works there had been an increase of 84 per cent. Whilst there must of necessity be some slackening in the pace during the years of war the magnitude of the Imperial contribution for this purpose is apparent from the following table—

[In thousands of £]

	Total Grants given (1911 12 to 1915 16).	Total Expenditure incurred (1911 12 to 1915 16)	Balance expected to be available on 1st April 1916.
	Recurring.	Non recurring.	Non recurring.
(1) Education	763	3 166	2 076
(2) Sanitation	246	1 723	1 111
(3) Medical Relief etc.		58	53
(4) Agriculture etc.		17	166
(5) Grants for other special purposes		1 345	1 418
(6) Grants for general purposes—Discretionary grants		687	388
Total	1 008	7 938	5 213

Add—Savings on recurring grants during foregoing period (about)

305

Total amount expected to be available from special grants on the 1st April 1916

5,518

Capital Account.—Reference has been made to the manner in which the financial statement of the Government of India is complicated by transactions on capital account—by provision for railways and irrigation and since the transfer of the capital for the new Delhi. It has been the practice in the past to finance these works in part from revenue surpluses and in part from borrowings in India and in London. Revenue surpluses have been drawn upon so largely for this purpose that there is really no unproductive debt in India, and the nominal figure of unproductive debt is only £12 millions (see Debt). The large balances accruing from the opium surpluses over and above the allotments made to the Local Governments and the redemption of temporary debt allowed the allocation of exceptionally large sums from balances to the avoidance of debt.

Increase of Debt.—These capital transactions assumed a special importance in the Budget for 1915 16, because the Government of India decided to meet all their requirements without an increase of taxation but by temporary and permanent borrowing. As **Ways and Means** formed the crux of the Budget, we give the salient passages from the Financial Statement in some detail—

'We have to find funds from which to meet the Imperial deficit of the coming year and the expenditure by Local Governments in excess of the revenue which they expect to raise in the same period. £1 million of debt mainly in connection with the purchase of the Indian Midland Railway some years ago is also due for discharge. By way of precaution too, we are assuming the possibility of a withdrawal of £1 million more of savings banks deposits during the coming year. This accounts as a liability against Unfunded Debt. There remains the head of Capital Outlay under which

alone it is optional to us to curtail our commitments. We are very reluctant to do this in the case of Irrigation and are accordingly providing the entire amount (£1 100 000) which our Public Works advisers consider they can spend, in the case of railways however it is inevitable that some considerable reduction should be made and in any case even if funds had been available it is unlikely that in the present circumstances of manufacturing establishments at home anything like the £12 million provided in the current year could again be spent. We have accordingly taken the next year's programme at £8 million. In the case of Delhi, we have made a very large reduction confining the next year's grant to a working minimum.

The total of these liabilities comes to about £14½ million. In addition we have to include, as pending obligations requiring to be dealt with in connection with the coming year's financial programme, the balance of the £7 million of India bills which the Secretary of State has raised in the current year, and the repayment of our loan of the same amount from the Gold Standard Reserve. Our total obligations are thus raised to some £28½ million.

The first of the resources on which we can draw as against these requirements is afforded by the large cash balances with which we shall close the current year. Owing to the loans taken from the Gold Standard Reserve we expect these to stand on 31st March next at about £21 million. Ordinarily we regard £15½ million as a sufficient amount to hold in our treasuries in India and at home at the close of a financial year and we thus have about £4½ million which can be regarded as available towards meeting our liabilities generally and still leave a little margin over the normal closing balances. We shall also set aside from revenue

ing, under the Famine Insurance Grant head close on half a million for reduction, or avoidance of debt, thus raising our assets, to about £5 million. Even so we are left however with some £9½ million still to find, and have also the £14 million of temporary debt still to consider. The question now is how is this shortage to be dealt with?

No additional Taxation.—The first method of adding to our resources which would naturally suggest itself—one which indeed, we have very seriously considered—is to follow the lead of the mother country and impose special taxation. We do not propose on this occasion to raise any money by increased taxation. We should not hesitate to do so to meet a deficiency in revenue which promised to be of a more or less abiding character. But the present circumstances are altogether peculiar. We know that ordinarily we can count on surpluses India too has a very small unproductive debt and, with trade conditions depressed, and the present abnormal rise in food prices in a large part of the country we have come to the conclusion that we ought not to add to existing taxation unless it is absolutely necessary.

Borrowing Programme for 1915-16.—In the first place we propose to continue the loan of £7 million from the Gold Standard Reserve and leave it still outstanding on the 31st March 1916. The Secretary of State also intends to renew in 1915-16 the £7 million of India bills which he has raised this year. This disposes of the temporary debt for the time being, but still leaves us the original £9½ million to find. We propose to obtain £3 million (4½ crores) of this amount in India. In addition to the funds which we thus find in India, it is the Secretary of State's intention to raise £6½ million by fresh borrowing in England either direct or through the agency of companies working State lines.

To sum up this examination of a complicated and difficult position, I may briefly state that we propose a reduced but still considerable

Railways.—This is a question which properly belongs to the railway heading (q r) but inasmuch as the disappearance of the profits has come bulk largely in the budget, they may be indicated here. The financial aspect of the railway property of the Government of India for the past five years is indicated in the following table—

Railway programme, a full standard of expenditure on irrigation, and a minimum outlay on Delhi while to meet our capital outlay and revenue deficits and our other various requirements we contemplate renewing the temporary loans raised in the current year and finding a further £9½ million by additional borrowings, whether permanent or temporary in England or in India. We thus put ourselves in a position to finance all requirements with which as far as we can at present see we are likely to be confronted in the coming year while at the same time providing for the maintenance of an adequate closing balance.

These decisions are set out statistically in the following table—

Outlay (In Millions of £)	
Imperial deficit	2 8
Provincial deficit	1 0
Capital outlay—	
Railways	8 0
Irrigation	1
Delhi	3
Discharge of debt	9 4
Unfunded debt	1 0
	2
Total	14 4
Add—Discharge of temporary debt raised in 1914-15	14 0
Grand Total	28 4

(In Millions of £)	
Assets.	
From balances	4 5
Rupee borrowing	3 0
Sterling borrowing	6 5
Famine Insurance and Miscellaneous items	4
Total	14 4
Add—Renewal of temporary debt raised in 1914-15	14 0
Grand Total	28 4

belongs to the railway heading (q r) but inasmuch as the disappearance of the profits has come bulk largely in the budget, they may be indicated here. The financial aspect of the railway property of the Government of India for the past five years is indicated in the following table—

	(In thousands of £)				
	1911-12	1912-13	1913-14	1914-15	1915-16
Capital at charge at end of each year	331 247	340 103	351 307	361 756	368 513
Net working profit from railways excluding interest charges	15 813	17 272	17 616	15 192	14 774
Percentage of net working profit to capital outlay	4 77	5 08	5 01	4 18	4 01
Net working profit from railways after meeting interest charges	3,768	4,903	4,790	1 914	1 179
Percentage to capital outlay of net profits after meeting interest charges	1 14	1 41	1 36	58	32

The disadvantage of the railway head is that it still further makes the finances of India dependent on the character of the monsoon. Railway profits entirely hinge on trade, and this hinges on the monsoon, whereas the opium surplus was largely independent of the character of the monsoon.

Summary.—The Indian Budget (*Quarterly Review*, March 5th, 1915).

India, its administration and progress (Macmillan). By Sir James, India and the Domes (London, By Sir William Murray).

Budget Details

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The details of the budget are set out in the following table. As the manner in which the great heads of income like land revenue, railways, irrigation and customs are realised is described in separate articles (q v) they need not detain us here.

REVENUE	Accounts, 1913-1914	Revised Estimate, 1914-1915	Budget Estimate, 1915-1916.
Principal Heads of Revenue—	£	£	£
Land Revenue	21,391,575	21,248,000	22,519,800
Opium	1,424,878	1,563,100	1,798,000
Salt	3,446,205	3,497,300	3,323,100
Stamps	5,518,293	5,021,300	5,107,100
Excise	8,894,600	8,781,800	8,700,300
Customs	7,668,220	6,819,500	5,943,000
Other Heads	5,490,175	5,150,400	5,161,000
TOTAL PRINCIPAL HEADS	68,728,748	51,764,000	52,221,100
Interest	1,859,119	1,008,300	1,067,100
Post and Telegraphs	8,628,619	2,519,300	8,579,200
Mint	3,393,311	57,900	71,300
Receipts by Civil Departments	1,408,286	1,484,500	1,524,000
Miscellaneous	772,579	769,600	583,200
Railways Net Receipts	17,025,634	15,268,800	15,029,500
Irrigation	4,713,159	4,713,300	4,796,800
Other Public Works	298,640	286,400	258,100
Military Receipts	1,363,652	1,315,700	1,220,300
TOTAL REVENUE	85,207,175	80,160,300	80,348,900
DEFICIT		2,741,000	2,770,800
TOTAL	85,207,175	82,897,900	83,117,200
EXPENDITURE			
Direct Demands on the Revenues	9,214,597	9,018,600	9,532,300
Interest	1,515,053	1,480,900	1,405,680
Post and Telegraphs	3,222,844	3,290,100	3,294,400
Mint	132,130	139,400	102,000
Salaries and Expenses of Civil Departments	17,034,189	13,890,000	19,130,100
Miscellaneous Civil Charges	5,408,804	5,392,600	6,108,400
Famine Relief and Insurance	1,000,000	1,000,000	1,000,000
Railways Interest and Miscellaneous			
Charges	12,638,101	13,354,700	12,850,000
Irrigation	3,331,807	3,729,000	3,650,500
Other Public Works	7,010,034	7,016,200	5,814,900
Military Services	21,607,765	21,901,400	21,220,800
TOTAL EXPENDITURE IMPERIAL AND PROVINCIAL	83,177,638	85,114,500	84,179,800
Add—Provincial Surpluses, that is portion of allotments to Provincial Governments not kept by them in the year	825,694		
Deduct—Provincial Deficits, that is portion of Provincial Expenditure defrayed from Provincial Balances	608,578	2,216,600	1,062,600
TOTAL EXPENDITURE CHARGED TO REVENUE SURPLUS	82,994,754	82,897,900	83,117,200
TOTAL	85,207,175	82,897,900	83,117,200

THE LAND REVENUE

The principle underlying the Land Revenue system in India has operated from time immemorial. It may be roughly formulated thus—The Government is the supreme landlord and the revenue derived from the land is equivalent to rent. On strictly theoretical grounds, ex-ception may be taken to this statement of the case. It serves, however, as a substantially correct description of the relation between the Government and the cultivator. The former gives protection and legal security. The latter pays for it according to the value of his

holding. The official term for the method by which the Land Revenue is determined is "Settlement." There are two kinds of settlement in India—Permanent and Temporary. Under the former the amount of revenue has been fixed in perpetuity and is payable by the landlord as distinguished from the actual cultivator. The Permanent Settlement was introduced into India by Lord Cornwallis at the close of the eighteenth century. It had the effect intended of converting a number of large revenue farmers in Bengal into landlords occupying a similar status to that of landowners in Europe. The actual cultivators became the tenants of the landlords. While the latter became solely responsible for the payment of the revenue the former lost the advantage of holding from the State. This system has prevailed in Bengal since 1793 and in the greater part of Oudh since 1850. It also obtains in certain districts of Madras.

Temporary Settlements.

Elsewhere the system of Temporary Settlements is in operation. At intervals of thirty years more or less the land in a given district is subjected to a thorough economic survey on the basis of the trigonometrical and topographic surveys carried out by the Survey Department of the Government of India. Each village area, wherever the Temporary Settlement is in vogue has been carefully mapped, property boundaries accurately delineated and records of rights made and preserved. Under the Permanent Settlement in Bengal the occupant does not enjoy these advantages. The duty of assessing the revenue of a district is entrusted to Settlement Officers, members of the Indian Civil Service specially devoted for this work. The duties of a Settlement Officer are thus described in Strachey's *India* (revised edition 1911) — "He has to determine the amount of the Government demand and to make a record of all existing rights and responsibilities in the land. He has a staff of experienced subordinates, almost all of whom are natives of the country, and the settlement of the district assigned to him is a work which formerly required several years of constant work. The establishment of agricultural departments and other reforms have however led to much simplification of the Settlement Officer's proceedings and to much greater rapidity in the completion of the Settlements. At the same time the settlement officer is still the supervisor of superior officers, the assessment proposed by him requires the sanction of the Government before they become final binding, and all judicial decisions may be reviewed by the Civil Courts. It is the duty of the settlement officer to make a record of every right which may form the subject of future dispute whether affecting the interest of the State or of the people. The intention is to alter nothing but to maintain and place on record that which exists."

The Two Tenures.

Under the Temporary Settlement land tenures fall into two classes—peasant-holdings and landlord-holdings or *Ryotwari* and *Zamindari* tenures. Broadly speaking, the difference between the two in a fiscal sense is that in *Ryotwari* tracts the *ryot* or cultivator pays the revenue direct to the Government while in *Zamindari* tracts the land

lord pays on a rental assessment. In the case of the former however, there are two kinds of *Ryotwari* holdings—those in which each individual occupant holds directly from Government and those in which the land is held by village communities the heads of the village being responsible for the payment of revenue on the whole village area. This latter system prevails in the North. In Madras, Bombay, Burma and Assam *ryotwari* tenure is on an individual basis, and the Government enters into a separate agreement with every single occupant. The basis of assessment on all classes of holdings is now more favourable to the cultivator than it used to be. Formerly what was believed to be a fair average sum was levied on the anticipated yield of the land during the ensuing period of settlement. Now the actual yield at the time of assessment alone is considered so that the cultivator gets the whole of the benefit of improvements in his holding subsequently brought about either by his own enterprise or by unearned increment. The Government however may at a new settlement re-classify a holding so as to secure for itself a fair share in an increment that may have resulted from public works in the vicinity such as canals and railways, or from a general enhancement of values. But the principle that improvements effected by private enterprise shall be exempt from assessment is now accepted by the Government and provided for in definite rules.

Incidence of the Revenue.

The incidence of the revenue charges varies according to the nature of the settlement, the class of tenure and the character and circumstances of the holding. Under the Permanent Settlement in Bengal Government derive rather less than £3,000,000 from a total rental estimated at £12,000,000. Under Temporary Settlements 50 per cent. of the rental in the case of *Zamindari* land may be regarded as virtually a maximum demand. In some parts the impost falls as low as 3% and even 2½ per cent. and only rarely is the proportion of one-half the rental exceeded. In regard to *Ryotwari* tracts it is impossible to give any figure that would be generally representative of the Government's share. But one-fifth of the gross produce is the extreme limit below which the incidence of the revenue charge varies greatly. About twelve years ago the Government of India were invited in an influential signed memorial to fix one-fifth of the gross produce as the maximum Government demand. In reply to this memorial and other representations the Government of India (Lord Curzon being Viceroy) issued a Resolution in defence of their Land Revenue Policy in which it was stated that under the existing practice the Government is already taking much less in revenue than it is now invited to exact, and the average rate is everywhere in the down grade. This Resolution, together with the statements of Provincial Governments on which it was based, was published as a volume. It is still the authoritative exposition of the principles controlling the Land Revenue Policy of the Government of India. In a series of propositions claimed to be established by this Resolution the following points are noted—(1) In *Zamindari* tracts

progressive moderation is the key-note of the Government's policy and the standard of 50 per cent. of the assets is more often departed from on the side of deficiency than excess. (3) In the same area the State does not hesitate to interfere by legislation to protect the interests of the tenant against oppression at the hands of the landlords. (4) In Ryotwari tracts the policy of long term settlements is being extended and the proceedings in connection with new settlements simplified and cheapened. (5) Local taxation (of land) as a whole is neither immoderate nor burdensome. (6) Over-assessment is not as alleged a general or widespread source of poverty and it cannot fairly be regarded as a contributory cause of famine. At the same time the Government laid down as principle for future guidance—(a) large enhancement of revenue when they occur to be imposed progressively and gradually and not *par adum*. (b) greater elasticity in revenue collection suspensions and remissions being allowed according to seasonal variations and the circumstances of the people. (c) a more general resort to reduction of assessments in cases of local deterioration.

Protection of the Tenants.

In regard to the second of the five propositions noted above various Acts have been passed from time to time to protect the interests of tenants against landlords and also to give greater security to the latter in possession of their holdings. The Oudh Tenancy Act of 1886 placed important checks on enhancement of rent and eviction and in 1900 an Act was passed enabling a landowner to entail the whole or a portion of his estate and to place it beyond the danger of alienation by his heirs. The Punjab Land Alienation Act passed at the instance of Lord Curzon embodied the principle that it is the duty of a Government which derives such considerable proportion of its revenue from the land to interfere in the interests of the cultivating classes. This Act greatly restricted the credit of the cultivator by prohibiting the alienation of his land in payment of debt. It had the effect of arresting the process by which the Punjab peasantry were becoming the economic serfs of money lenders. A good deal of legislation affecting land tenure has been passed from time to time in other provinces and it has been called for more than once in Bengal

where under the Permanent Settlement (in the words of the Resolution quoted above) so far from being generously treated by the Zemindars the Bengal cultivator was rack-rented, impoverished and oppressed.

Government and Cultivator

While the Government thus interferes between landlord and tenant in the interests of the latter its own attitude towards the cultivator is one of generosity. Mention has already been made of the great advantage to the agricultural classes generally of the elaborate systems of Land Survey and Records of Rights carried out and maintained by Government. In the Administration Report of Bombay for 1911-12 it is stated—The Survey Department has cost the State from first to last many lakhs of rupees. But the outlay has been repaid over and over again. The extensions of cultivation which have occurred (by allowing cultivators to abandon unprofitable lands) have thus been profitable to the State no less than to the individual whereas under a *Zemindari* or kindred system the State would have gained nothing, however much cultivation had extended throughout the whole of 30 years leases. On the other hand the system is of advantage to the *ryots* in reducing settlement operations to a minimum of time and procedure. In the collection of revenue the Government consistently pursues a generous policy. In times of distress suspensions and remissions are freely granted after proper inquiry.

The amount of gross revenue raised on the land is estimated in 1915-16 at £2 049 000 out of a total from all sources in the same year of £80 348 000. This compares very favourably with the £34 000 000 of land revenue recorded as having been raised annually from a smaller empire by Aurangzobe.

The literature of the subject is considerable. The following should be consulted by readers who require fuller information: "Land Revenue Policy of the Indian Government," 1902 (Superintendent of Government Printing). Eastern Pancha Land Systems of British India. Sir John Strachey's India, its Administration and Progress 1911 (Macmillan & Co.) M. Joseph Chailley's Administrative Problems of British India (Macmillan & Co 1910) and the Annual Administration Reports of the Respective Provincial Governments.

EXCISE.

The Excise revenue in British India is derived from the manufacture and sale of intoxicating liquors, hemp drugs and opium. It is a commonplace amongst certain sections of temperance reformers to represent the traffic in intoxicating liquors as one result of British rule. There is, however, abundant evidence to show that in pre-British days the drinking of spirituous liquors was commonly practised and was a source of revenue.

The forms of intoxicating liquor chiefly consumed are country spirit, fermented palm juice, beer made from grain country brands of rum, brandy, etc., locally manufactured malt beer and imported wine, beer and spirits. Country spirit is the main source of revenue, except in the Madras Presidency, and yields about

two-thirds of the total receipts from liquors. It is usually prepared by distillation from the Mahua flower molasses and other forms of unrefined sugar fermented palm juice and rice. The British inherited from the Native Administration either an uncontrolled or Still System or in some cases a crude Farming System and the first steps to bring these systems under control were the limitation of the number of shops in the area farmed, and the establishment of an improved Out Still System under which the combined right of manufacture and sale at a special shop was annually granted. This of course was a kind of control, but it only enabled Government to impose haphazard taxation on the liquor traffic as a whole, by means of vend fees. It did not enable Government to

gradually the taxation accurately on the still head duty principle nor to insist upon a standard of purity or a fixed strength of liquor. Moreover for political and other reasons the extent of control could not at first be complete. There were tribes of aborigines who regarded the privilege of making their own liquor in their private homes as a long established right and who believed that liquor poured as libations to their god should be such as had been made by their own hands. The introduction of any system amongst those peoples had to be worked very cautiously. Gradually as the Administration began to be consolidated the numerous native pot-stills scattered all over the country under the crude arrangements then in force began to be collected into Central Government enclosures called Distilleries, thus enabling Government to perfect its control by narrowing the limits of supervision and to regularize its taxation by imposing a direct still head duty on every gallon issued from the Distillery. Under Distillery arrangements it has also been possible to regulate and supervise thoroughly the manufacture of liquor and its disposal subsequent to its leaving the Distillery by means of a system of transport passes establishment supervision improved distribution and vend arrangements.

Various Systems.

The Out-Still System may be taken to include all systems prior in order of development to the imposition of Still head duty. Briefly stated the stages of development have been—First farms of large tracts. Second farms of smaller areas. Third farms of the combined right to manufacture and sell at particular places without any exclusive privilege over a definite area. Fourth farms of similar right subject to control of means and times for distilling and the like. The Provincial Governments have had to deal with the subject in different ways suited to local conditions, and so the order of development from the lower forms of systems to the higher has not been always everywhere identical in details. Yet in its essence and main features the Excise Administration in most provinces of British India has progressed on uniform lines, the key note lying in attempts, where it has not been possible to work with the fixed duty system in its simplest form, to combine the farming and fixed duty systems with the object of securing that every gallon of spirit should bear a certain amount of taxation. The Out-Still System has in its turn been superseded by either the Free-supply system or the District Monopoly system. The Free-supply system is one of free competition among the licensed distillers in respect of manufacture. The right of vend is separately disposed of. The District Monopoly system on the other hand is one in which the combined monopoly of manufacture and sale in a district is leased to a farmer subject to a certain amount of minimum still head duty revenue in the monopoly area being guaranteed to the State during the term of the lease.

The recommendations of the Indian Excise Commission of 1905-06 resulted in numerous reforms in British India, one of them being that the various systems have been or are gradually being superseded by the Contract Dis-

tillery System under which the manufacture of spirit for supply to a district is disposed of by tender, the rate of still head duty and the supply price to be charged are fixed in the contract and the right of vend is separately disposed of. This is the system that now prevails over the greater portion of British India. The other significant reforms have been the revision of the Provincial Excise Laws and regulations and the conditions of manufacture vend, storage and transport, an improvement in the quality of the spirit, an improved system of disposal of vent licences, reductions and re-distributions of shops under the guidance and control of local Advisory Committees, and gradual enhancement of taxation with a view to checking consumption.

The average incidence of taxation per proof gallon of distillery spirit amounted in 1911-12 to Rs. 5-2-6. Rs. 3-8-6 was derived from still head duty and Rs. 0 10 0 from vend fees. The average consumption per 1000 of the population in distillery areas varies from 23 gallons in Eastern Bengal to 173 gallons in the Bombay Presidency Proper (1910-11).

Sap of the date palm-tree and coconut palms, called toddy is used as a drink either fresh or after fermentation. In Madras and Bombay the revenue is obtained from a fixed fee on every tree from which it is intended to draw the liquor. In Bengal and Burma the sale of shop licences is the sole form of taxation. Country brands of rum and so-called brandies and whiskeys, are distilled from grape juice etc. The manufacture is carried out in private distilleries in various parts of India. A number of breweries has been established mostly in the hills, for the manufacture of a light beer for European and Eurasian consumption. The uniform fee of 3 annas per gallon is levied all over India at the time of issue.

Foreign liquor is subject to an import duty at the tariff rates, the most important of which is Rs. 5-5-0 per proof gallon on spirit and 3 annas per gallon on beer. It can only be sold under a licence.

Drugs.—The narcotic products of the hemp plant consumed in India fall under three main categories namely ganja or the dry flowering tops of the cultivated female hemp plant charas or the resinous matter which forms an active drug when collected separately and bhanga or the dried leaves of the hemp plant whether made or female cultivated or uncultivated. The main features of the existing system are restricted cultivation under supervision storage in Bonded Warehouses payment of a quantitative duty before issue retail sale under licences and restriction on private possession. Licences to retail all forms of hemp drugs are usually sold by auction.

Opium.—Opium is consumed in all provinces in India. The drug is commonly taken in the form of pills but in some places chiefly on social and ceremonial occasions it is drunk dissolved in water. Opium smoking also prevails in the City of Bombay and other large towns. The general practice is to sell opium from the Government Treasury, or a Central Warehouse to licensed vendors. The right of retail to the public is sold by annual auction to one or several sanctioned shops.

The opium revenue in 1915-16 is estimated at \$1,798,000, and the Excise revenue at \$3,790,300.

SALT

The salt revenue was inherited by the British Government from Native rule, together with a miscellaneous transit dues. These transit dues were abolished and the salt duty consolidated and raised. There are four great sources of supply, rock salt from the Salt Range and Khetri Mines in the Punjab, brine salt from the Sambhar Lake in Rajputana, salt brine condensed on the borders of the lesser Rann of Cutch, and sea salt factories in Bombay, Madras and at the mouth of the Indus.

The Salt Range mines contain an inexhaustible supply. They are worked in chambers excavated in salt strata, some of which are 250 feet long, 45 feet wide and 200 feet high. The Rajputana supply chiefly comes from the Sambhar Lake where brine is extracted and evaporated by solar heat. In the Rann of Cutch the brine is also evaporated by solar heat and the product is known as Barasara salt. In Bombay and Madras sea water is let into shallow pans on the sea-coast and evaporated by solar heat and the product sold throughout India. In Bengal the damp climate together with the large volume of fresh water from the Ganges and the Brahmaputra into the Bay of Bengal render the manufacture of sea salt difficult and the bulk of the supply

both for Bengal and Burma, is imported from Liverpool, Germany, Aden, Bombay and Madras.

Broadly one-half of the indigenous salt is manufactured by Government Agency and the remainder under license and excise systems. In the Punjab and Rajputana the salt manufactories are under the control of the Northern India Salt Department, a branch of the Finance Department. In Madras and Bombay the manufactories are under the supervision of Local Governments. Special treaties with Native States permit of the free movement of salt throughout India, except from the Portuguese territories of Goa and Damaun, on the frontiers of which patrol lines are established to prevent the smuggling of salt into British India.

From 1888-1903 the duty on salt was Rs. 2-5 per maund of 82 lbs. In 1903 it was reduced to Rs. 2. In 1905 to Rs. 1-8 and in 1907 to Rs. 1 at which figure it now stands. The successive reductions in duty have led to a largely increased consumption, the figures rising by 25 per cent. between 1903-1908. To illustrate the growth of consumption in 1902-03 with a tax of Rs. 2-8-0 per maund the revenue was 838 lakhs, for 1915-16 with a duty of Rs. 1 the estimated revenue is £3 382,100.

CUSTOMS.

The Indian fiscal system consists of a moderate tariff for revenue purposes only. There is a general import duty of five per cent *ad valorem* on all goods imported by sea, with special conditions for textiles and a large free list. Export duties are levied only on rice at the rate of three annas per maund of 82 pounds. The export is principally from Burma.

The import duties have varied from time to time according to the financial condition of the country. Before the Mutiny they were five per cent. In the days of financial stringency which followed they were raised to 10 and in some cases 20 per cent. In 1875 they were reduced to five per cent. but the opinions of Free Traders and the agitation of Lancashire manufacturers who felt the competition of the Indian Mills induced a movement which led to the abolition of all customs dues in 1882. The continued fall in exchange compelled the Government of India to look for fresh sources of revenue and in 1894 five per cent duties were reimposed on yarns and cotton fabrics being excluded. Continued financial stringency brought piece-goods within the scope of the tariff and after various expedients the demands of Lancashire were satisfied by a general duty of 3½ per cent on all woven goods—an import duty on goods by sea, an excise duty on goods produced in the country. The products of the hand looms are excluded. These excise duties are intensely unpopular in India for reasons set out in the special article dealing with the subject. In 1910-11 in order to meet the deficit threatened by the loss of the revenue on opium exported to China, the silver duty was raised from 5 per cent to 40 annas, and higher duties levied on petroleum, tobacco, wines, spirits, and beer. These were estimated to produce £1 million annually.

The principal exemptions from the tariff are food grains, machinery, railway material and coal. Iron and steel pay a nominal duty of one per cent.

The Customs revenue for the current year is estimated at £5,943,000.

The Customs Department is administered by an Imperial Customs Service responsible to the Imperial Government in the Department of Commerce and Industry, but acting through the Local Governments. The senior Collectors are Covenanted Civilians, specially chosen for this duty; the subordinates are recruited in India and in England (*Customs Tariff & v.*)

Income Tax

The income tax was first imposed in India in 1860 in order to meet the financial dislocation caused by the Mutiny. It was levied at the rate of four per cent, or a little more than 9½ d. in the pound on all incomes of five hundred rupees and upwards. Many changes have from time to time been made in the system and the present schedule was consolidated in the Act of 1886. This imposed a tax on all incomes derived from sources other than agriculture which were exempted. On incomes of 2,000 rupees and upwards it fell at the rate of five pice in the rupee, or about 8½ d. in the pound; on incomes between 500 and 2,000 rupees at the rate of four pice in the rupee or about 5½ d. in the pound. In March 1903 the minimum taxable income was raised from 500 to 1,000 rupees. The tax is paid by about 800,000 people, and although it is unpopular chiefly because it was nominally only temporarily imposed and because it falls most heavily on those with fixed incomes, there is no likelihood of its repeal. The yield of assessed incomes is estimated at (1914-15) £ 2,000,000.

THE DEBT OF INDIA.

To understand the debt of India it must be remembered that the Government of India is always a borrower. The country still needs a vast capital expenditure both on Railways and irrigation. Indeed the expenditure on railways is always conditioned not by the needs of the country but by the ability of the market to supply capital—a supply which is always unequal to the demand. In the case of irrigation the supply of capital has of late years been equal to the amount which could be spent; great irrigation schemes require long and elaborate investigation and when the investigations are complete the actual construction of the works is governed by the labour supply which is increasingly expensive and fairly equal to the demand. These conditions make India a constant borrower and she raises every year as much money as the Indian and London money markets can supply. The whole of this money is spent on productive works. The Indian railway system now returns to the State after paying all interest charges and certain annuities for the redemption of capital, a surplus which varies with the character of the season. The irrigation works return a profit of over five per cent. Whilst therefore India is a constant borrower she borrows only for expenditure on productive works. Her finance is even more conservative than this for in most years a sum is set apart from the revenue surplus for expenditure on capital works. Through the operation of this policy the unproductive debt of India has been reduced to negligible proportions. It has been estimated by competent financiers that if a fair balance sheet were struck the balance would be on the right side.

When the trading charter of the East India Company expired in 1835 the rupee debt was Rs. 332.95 millions. Fifteen years later in 1850-51 the debt reached Rs. 458.86 millions and it stood at almost exactly that sum in the year preceding the mutiny of 1857. That rebellion caused a large increase in the rupee debt which stood at Rs. 635.55 millions in 1859-60 the year following the suppression of the revolt. The debt then gradually rose to Rs. 697.57 millions by 1874-75 and another large increase occurred in the succeeding decade due to the great famine of 1877-78 and to the military operations in Afghanistan which followed the famine. By 1883-84 the rupee debt rose to Rs. 931.25 millions. There was then a further increase to Rs. 980.4 millions in 1887-88 to Rs. 1,007.48 millions in 1888-89 and to Rs. 1,052.8 millions in 1893-94. A three per cent loan was raised in July 1896 and the debt stood at Rs. 1,082.12 millions at the end of 1896-97 and increased to Rs. 1,191.99 millions in 1903-04 to Rs. 1,238.75 millions in 1905-06 to Rs. 1,356.67 millions in 1909-10 and to Rs. 1,397.63 millions in 1911-12.

A four per cent terminable loan of Rs. 41 crores (£ 8 million) was issued in 1916. The present dimensions of the debt are given below under the head of *Interest*.

Starting Debt.

The interest-bearing sterling debt was very small until the mutiny year, but the increase

was rapid after that. As in India, the rate of interest on the sterling debt has been gradually reduced from 4 ½ and 5 per cent. to 2 ½, 3 and 3 ½ per cent. respectively. At the end of 1910-11 proportions of the debt held at these rates are £11,832,207 at 2 ½ per cent. £86,724,580 (including 3 per cent. India stock of the nominal value of £3,000,000 issued in August 1900 £2,009,500 issued in 1901-02 £1,500,000 issued in May 1902, £1,600,000 issued in 1903-04, £2,300,000 issued in 1904-05 £12,089,148 issued in 1905-06 and £2,000,000 issued in 1906-07) at 3 per cent. and £55,511,748 at 3 ½ per cent. In May 1907 a 3 ½ per cent. sterling loan of £3,500,000 was raised and in January 1908 a further 3 ½ per cent. loan of £5,000,000 was raised towards providing for railway capital expenditure of 1908-09 and for the discharge of certain Bombay Baroda and Central India Railway debentures. Simultaneously in February 1908 a loan of £7,500,000 and in January 1910 a further loan of £7,500,000 were issued at the same rate of interest. In October 1910 3 ½ per cent. India Bonds for £4,000,000 were issued for the discharge of the Madras and Indian Midland Railway debentures and in March 1911 a new 3 ½ per cent. sterling loan of £3,500,000 was issued to provide funds for capital expenditure in 1911-12.

Railway Expenditure.

A large proportion both of the sterling and of the rupee debt was incurred in connection with the construction of railways and other public works. Considerable additions to the rupee and sterling debt were made in the two years 1896-97 and 1897-98 in consequence of famine, plague war and the prosecution of railway extension and to the sterling debt in 1900 and subsequent years for the purchase of the G. I. P. Railway, the discharge of its debentures and advances of Indian Railway Companies. In addition to the loans raised during 1907-08 the Secretary of State incurred liability in respect of £2,144,800 debentures of the Madras Railway Company on the purchase of the undertaking on the 31st December 1907. At the end of 1912-13 the total registered debt in India and England was classified as follows—Railways £11,832,207 (including £ 75,210,000 ordinary £ 24,627,777 new capital at 2 ½ £ 119,886 interest railways £7,072,544 rupee loan £1,232,513 ordinary £1,169,047 other obligations £841,488.

Interest.

The interest on the rupee debt was at the rate of six per cent. in 1822, and the debt bearing this rate was not finally paid off until 1858-59. Meanwhile the Government borrowed, from 1822 until 1852-53 at 8½ per cent. and from 1824 (but in a small way until 1835) at four per cent. The bulk of the five per cent. debt was converted to four per cent. in 1864, but the shock to the credit of the State caused by the mutiny necessitated more borrowing at the higher rate of five per cent. and that loan was not finally extinguished until 1871. Meanwhile the Government were compelled to borrow at 5½ per cent. in 1869, and this 5½ per cent. loan was not closed until 1878-79. A small sum was borrowed at 4½ per cent. in 1866-67 and the debt at this rate of interest was largely increased in 1871 by the

conversion of the 5½ per cent loan. By 1878-79 practically the whole rupee debt bore interest at 4½ and 4 per cent. Rs 161.48 millions at 4½ and Rs 813.88 millions at 4 per cent. The 4½ per cent. loans were all converted to 4 per cent. by 1883 save for a sum of Rs 10 millions being a loan from the Maharaja Holkar on account of the Indore State Railway which is not convertible until about 1970. In the same year a small loan of Rs 35.6 millions was raised at 3½ per cent. and in the following year the bulk of the 4 per cent. loans was converted to the rate of 3½ per cent. In 1896-97 a new loan of Rs 40 millions was raised at 3 per cent. On the 4th July 1900 a loan of Rs 30 millions was raised at 3½ per cent. and this was followed by other loans, at the same rate of interest.

In 1915 in order to meet the higher price of money caused by the war the 4½ crore loan was

issued at 4 per cent. and was redeemable in 1923. The debt provided for in the Budget of 1915-16 is as follows —

Sterling	£ 182,657,257
Rupee—	
4 per cent.	Rs 3,07,00,000
3½ per cent.	1,42,64,84,400
3 per cent.	8,17,32,600
Other debt	1,00,71,300
Temporary Loans	11,00,00,000
Savings Bank Balances	21,32,14,898

The Budget of 1915-16 provided for an Expenditure on interest of Rs 5,89,00,000 (£ 3,826,700) in India and £6,092,300 in England, a total of £10,019,000.

Absorption of Gold in India

(In lakhs of Rupees)

	1909-10	1910-11	1911-12	1912-13	1913-14	1914-15
1 Net annual addition to the stock of the country	24.00	27.00	40.00	57.50	27.00	11.00
2 Progressive total of additions to the stock	218.00	243.00	283.00	321.00	448.00	359.00
3 Held in mints and Government Treasuries and Currency and Gold Standard Reserve	9.00	9.00	24.00	30.00	22.50	15.50
4 Net annual variation in item 3	9.00		15.00	6.00	-7.50	-7.00
5 Net progressive absorption	207.00	234.00	259.50	291.00	325.50	343.50
6 Absorption of the year	15.00	27.00	25.50	31.50	34.50	18.00

Item 1 shows the amount of gold produced in India plus the net imports (i.e. imports minus exports). In 1914-15 the gold produced was Rs 3,51 lakhs plus net imports Rs 7.65 lakhs 11.00 lakhs in round figures. Item 2 shows the progressive total of the figures in item 1 to the end of each year. Total at end of 1913-14 Rs 448.00 lakhs plus figure for 1914-15 Rs 11.00 lakhs = 359.00 lakhs at the end of 1914-15. Item 3 shows the reserve held in India plus the amount of gold received into the mints in each year. Item 4 shows the annual variation in the actual amount held in the mints and in the reserves in India. Amount held in 1914-15 Rs 15.50 lakhs minus that held in 1913-14 Rs 22.50 lakhs is equal to—Rs 7.00 lakhs shown against this item in 1914-15. Item 5 shows the difference between item 2 (progressive total) and 3 (amounts held in the mints etc.) Rs 359.00 lakhs minus Rs 15.50 lakhs = Rs 343.50 lakhs during 1914-15. Item 6 shows the difference between two successive figures in item 5. Rs 343.50 lakhs minus Rs 325.50 lakhs Rs 18.00 lakhs during 1914-15, or in other words the difference between item 1 (annual addition to the stock) and item 4 (net variation in item 3). Rs. 11.00 lakhs minus (—Rs. 7.00 lakhs), i.e., Rs. 18.00 lakhs is the net absorption of the year.

Amount of the Rupee and Sterling Debt and of the Interest thereon annual increase of Redemption of the Debt and the Redemption of the Rupee Debt held in London from 1892-21 to 1915-16

	Registered debt in India	Registered debt in London	Interest payable		Amount borrowed and paid off each year (Borrowed + paid off—)		Proportion of the registered rupee debt held in London on 31st March.	
			£	Rs.	In India	In England		
						£		Rs.
1892-93	27,24,77,650	6,702,599	1,03,15,400	253,247	—20,73,970	—109,268	15,38,06,030	
1893-94	33,12,06,660	3,750,478	1,74,19,770	93,377	+75,52,710	—46,418	16,34,51,730	
1894-95	29,47,65,040	1,756,562	2,19,30,500	138,498	+1,00,72,720	—100	17,34,79,910	
1895-96	33,41,59,100	2,459,595	2,38,24,660	1,30,892	+10,06,920	—100	17,56,39,930	
1896-97	33,43,03,450	2,319,817	2,38,22,440	1,47,874	—2,49,050	+1,139,700	17,49,07,490	
1897-98	33,82,11,060	31,890,017	2,39,95,320	1,45,766	+40,02,610	+3,419,800	17,58,37,170	
1898-99	33,40,54,330	26,332,617	2,39,06,180	1,20,451	—41,75,740	—256,800	17,54,77,170	
1899-00	33,36,06,840	25,146,017	2,38,06,100	1,23,165	—3,71,480	—186,600	17,54,77,170	
1900-01	32,35,10,770	20,987,317	2,34,13,900	1,27,420	—9,56,070	+821,900	17,54,77,170	
1901-02	32,97,84,230	28,839,617	2,37,15,300	1,40,540	+59,72,460	+1,592,600	17,54,77,170	
1902-03	33,76,50,920	29,718,417	2,31,57,860	1,44,876	+78,08,790	+1,158,400	17,54,77,170	
1903-04	33,41,08,910	31,218,917	2,39,87,270	1,46,918	—35,43,110	—1,300,500	17,54,77,170	
1904-05	33,39,31,220	33,217,617	2,39,17,500	1,62,948	+2,18,27,310	+3,998,700	17,54,77,170	
1905-06	33,40,83,370	33,012,617	2,31,56,310	1,75,268	+1,51,62,460	+3,410,000	17,54,77,170	
1906-07	33,43,83,690	39,012,617	2,39,20,500	1,74,118	—1,51,05,730	+1,395,000	17,54,77,170	
1907-08	33,43,83,690	41,517,617	2,39,20,500	1,96,544	+9,13,29,450	+2,105,000	17,54,77,170	
1908-09	33,43,83,690	46,707,023	2,39,20,500	2,05,532	+9,13,29,450	+1,395,000	17,54,77,170	
1909-10	33,43,83,690	55,307,023	2,39,20,500	2,49,271	+9,13,29,450	+1,395,000	17,54,77,170	
1910-11	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1911-12	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1912-13	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1913-14	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1914-15	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1915-16	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1916-17	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1917-18	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1918-19	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1919-20	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	
1920-21	33,43,83,690	59,677,023	2,39,20,500	2,60,478	+9,13,29,450	+1,395,000	17,54,77,170	

(a) No information

AMOUNT OF THE RUPEE AND STEELING DEBT—(contd.)

	Registered debt in India.	Registered debt in London	Interest payable		Amount borrowed and paid off each year (Borrowed +, paid off—)		Proportion of the registered rupee debt held in London on 31st March.	
			Rs.	£.	In India	In England		
						Rs.		£.
1881-82	68,65,31,620	68,131,947	3,94,43,280	2,708,198	+2,69,34,160	-3,287,186	Rs. 25,66,99,550	
1882-83	90,06,13,840	68,585,694	3,74,11,490	2,725,748	+2,02,06,040	+443,747	22,68,11,820	
1883-84	93,19,13,840	68,108,837	3,84,91,140	2,704,807	+2,50,26,180	-476,857	22,08,78,180	
1884-85	92,70,39,920	60,271,088	3,84,18,550	2,701,528	-77,240	+1,102,251	21,83,90,870	
1885-86	92,70,39,920	73,806,031	3,77,35,380	2,703,068	-47,96,780	+5,76,533	20,71,85,860	
1886-87	92,06,36,360	84,828,177	3,82,08,570	2,703,411	-5,03,480	+4,571,536	19,14,95,570	
1887-88	98,06,04,630	84,140,148	4,03,78,590	2,918,059	+4,53,82,260	-88,099	20,81,68,870	
1888-89	1,00,87,97,420	95,033,615	4,15,78,120	3,230,474	+2,78,94,800	+10,891,463	21,71,40,640	
1889-90	1,02,76,11,760	98,192,391	4,21,50,080	3,327,348	-1,68,14,530	+3,158,781	21,59,40,460	
1890-91	1,02,74,65,650	104,408,208	4,17,51,110	3,624,370	+1,46,300	+6,215,817	24,75,12,940	
1891-92	1,02,60,23,170	104,404,143	4,17,51,000	3,602,849	-6,42,380	+2,905,935	27,50,85,410	
1892-93	1,02,93,75,520	104,683,762	4,12,77,700	3,570,882	+2,42,350	-720,376	25,93,38,610	
1893-94	1,05,54,60,780	114,113,792	4,20,92,080	3,687,986	+2,60,82,260	+7,430,025	24,93,38,610	
1894-95	1,04,37,37,400	116,005,828	3,61,09,140	4,825,323	-1,17,27,380	+1,862,034	23,62,59,660	
1895-96	1,03,78,89,240	115,903,732	3,84,00,740	3,607,883	-58,48,180	-102,084	25,35,07,580	
1896-97	1,09,11,50,630	114,883,253	3,78,43,780	3,813,203	+3,37,61,260	-1,020,498	24,06,69,680	
1897-98	1,11,99,56,540	123,274,680	3,87,11,060	3,840,778	+2,68,06,810	+5,891,447	21,60,87,080	
1898-99	1,12,95,40,760	124,205,002	3,81,13,340	3,852,758	+4,90,06,040	+9,983,925	21,44,13,380	
1899-00	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1900-01	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1901-02	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1902-03	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1903-04	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1904-05	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1905-06	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1906-07	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1907-08	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1908-09	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1909-10	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1910-11	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1911-12	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1912-13	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1913-14	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1914-15	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	
1915-16	1,12,37,10,040	123,435,877	3,80,68,610	3,875,126	+3,77,69,970	+2,381,204	20,81,68,254	

THE RUPEE DEBT

Return of the Interest Bearing Rupee Debt of the Government of India as at 31st August 1915.

In Thousands of Rupees.

Particulars.	Date of Issue.	Conditions of Repayment.	Amount	Total.
Railway Loans—				
Maharaja Holkar 4½ p c	(1870-77)	After 101 years	10000	
Maharaja Scindia 4 p c		Perpetual	15000	
Nawab of Rampur 4 p c	(1892-93)	After one year's notice to be given on or after 1st Dec 1917	4700	29700
Special Loans—				
Gwalior 4 p c 1987		By annual instalments of 12 lakhs.	12200	12200
Four p c. Terminable Loan.	(1913-16)	On or before 30th November 1923 but not preceding 30th November 1920 with three months previous notice.	(a) 462.3	46273
Three and Half per cent				
1842-43	1st Feb 1843		294225	
1854-55	30th June 1854		336107	
Three and Half p c coupon				
1865	1st May 1865		6900	
Reduced 1879	18th Jan 1879		379,007	
1900-1	30th June 1900		38993	
			397200	1331902
1896-97	22nd July 1896		81268	81268
		TOTAL		1551341

(a) Inclusive of 1273 representing Loan raised through Post Office during the month

DISTRIBUTION OF RUPEE DEBT

	Calcutta	Inland	Madras.	Bombay	Total India
Railway Loans		29700			29700
Special Loan		12200			12200
4 per cent.	411.1	14.1	6208	13210	5060
3½ per cent	6000.4	2 22.8	854.8	33741.2	12,041.0
3 per cent.	47.11	12400	635.5	12,351	7831
	671436	32,937	980.1	302973	1400447

	Proportion in India held by		Held in London	Unissued	Total as above
	Indians	Europeans			
Railway Loans	29700				29700
Special Loan	12200				12200
4 per cent.	11,225	3343.3		1213	462.3
3½ per cent.	7 3288	5,960.2	86732		1331902
3 per cent.	30118	46204	2949		81268
	813506	841941	89681	1213	1551341

STERLING DEBT

Debt Bearing Interest	Capital of Debt.		Rate %	Annual Interest payable	
	31st March 1914	31st March 1915		31st March 1914	31st March 1915
India 3½ per cent Stock	£ 91211186	91137350	3½	£ 3192392	3199807
India 5 per cent Stock	96212384	66028171	5	1965372	19 0845
India 2½ per cent Stock	11800331	11689987	2½	295158	292250
India Bonds	2500000	2000000	3½	87500	70000
India Bills		7000000			(Not known)
East India Railway Debenture Stock	1495650	1435650	4½	64604	64604
Eastern Bengal Ry Debenture Stock	348686	348686	4	13947	13947
South India Ry Debenture Stock	425000	425000	4½	19125	19125
G I P Railway Debenture Stock	2701450	2701450	4	108068	108068
Indian Midland Ry Debentures	407600	407600	3½	14282	14263
	177048173	183173774			
Debt not bearing Interest—					
India 5 per cent Stock	9305	9305			
India 4 per cent Stock	7279	7279			
	16584	16584			
Total Debt and Annual Interest thereon on 31st March 1915	177064757	183190358		5781418	5752898

INDIAN RAILWAY ANNUITIES

	31st March 1914	31st March 1915
East Indian Railway	£	
Annuity terminating in 1953	850578	
Interest in lieu of deferred annuity	282000	
Eastern Bengal Railway Annuity terminating in 1957	110551	
Scindia Punjab & Delhi Railway Annuity terminating in 1908	371881	
G I P Railway Annuity terminating in 1948	1268516	
Madras Railway Annuity terminating in 1956	488381	
Total Indian Railway Annuities on 31st March 1914	3857647	(Later figures not available)

THE INDIAN MINTS

The Mint in Calcutta dates from the end of the 17th century. The present building, designed by Major N W Forbes, was opened in 1841 the central portion being held to be a copy on half dimensions of the temple of Minerva at Athens. The Copper Mint to the north-east of the Silver Mint, was opened in 1866.

Mint Master Major A. L. C. McCormick, R.E.

Deputy Mint Master

Assay Master Lieut.-Col. J J Bourke, I.M.S.

Deputy Assay Master, Lieut. Col. F T C

Hughes, I.A. F.C.S.

The Bombay Mint—The first Mint established in Bombay in 1670 was for the coinage of

“rupees, pies and bulruks, authority for its working being granted by letters patent. The erection of the present Mint was sanctioned by the East India Company in 1823, and was designed by Major John Hawkins of the Bombay Engineers. The cost of construction was estimated at 36 lakhs.

Mint Master Major G H Wallis M.V.O. R.E.

Assistant Mint Master Mr A E B Gordon.

Assay Master Lt.-Colonel J Lloyd Thomas

Jones, I.M.S.

Deputy Assay Master Capt. H J Wallis, I.A.

During the year 1914-1915 gold to the value of Rs. 2,88,63,850 was tendered at the two Mints.

The following statement shows the details of the silver coinage executed for the Government of India in the two mints during 1914-15—

	Calcutta	Bombay	Total
	Value in Rs.	Value in Rs.	Value in Rs.
Rupees	1 28,00 000	54,71 853	1,80 71 853
Half Rupees	8,99,946	4,51,564	11,51 470
Quarter Rupees	5 66,469	5 24,113	10 92,582
English rupees	7 86,450	7 42,841	14,79,291
Total	1 46 04,845	71 90 471	2,17 95 336
Total for 1913-14	6 63,96 058	6 52,32 479	13 16 68,537

There was no coinage of rupees from purchased silver during the year. The amount of fractional silver coined was also much less than in the preceding year owing to the existence of adequate stocks in treasuries and depots and to a falling off in the demand for small coin generally.

Nickel coinage was confined to the Bombay Mint and consisted of 42,302,000 anna pieces of the nominal value of Rs. 28,47,000 against 46,330,000 pieces of the nominal value of Rs. 28,95,000 coined in the previous year.

Bronze coinage which was as usual carried out entirely at the Calcutta Mint consisted of pice half pice, and pies of the aggregate value of Rs. 4,30,700 as compared with Rs. 20 85,439 in the preceding year. There was a large return of single pice from circulation and this accounts for the falling off in the coinage. In addition to the coinage work of the Government of India Rs. 40,000 worth of cents and half cents were coined for the Ceylon Government, and Rs. 3,125 worth of Copper annas cashes for the Federated Malay States.

The Revenue and Expenditure of the two Mints (including interest on capital outlay and other pro forma charges) amounted to Revenue Rs. 3 55,924 and Expenditure, Rs. 19 45,878.

HISTORY OF THE COINAGE

The Indian mints were closed to the unweighted coinage of silver for the public from the 28th June 1893 and Act VIII of 1893 passed in that date, repealed Sections 19 to 24 of the Indian Coinage Act of 1877 which provided for the coinage at the mints for the public of gold and silver coins of the Government of India. After 1893 no Government rupees were coined until 1897 when under arrangements made with the Native States of Bhopal and Kashmir, the mints of those States were replaced by Government mints. The re-coinage of those States proceeded through the two years 1897 and 1898. In 1899 there was no coinage of rupees, but in the following year it seemed that change was necessary and it was begun in January 1900 the Government purchasing the new rupees, and paying for it mainly with a gold accumulated in the Paper Currency Fund. In that and the following month a

The Gold and Silver Assays made during the year numbered—

	Calcutta	Bombay
Year	Gold	Silver
1914-15	471	10 085
	Gold	Silver
	3,286	4,122

The Indian denominations with their British equivalents are—

Pie	= 1/12 penny
Pice (3 pies)	= 1 farthing
Anna (12 pies)	= 1 penny
Rupee (16 annas)	= 1s 4d

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

The equivalents of the rupee in various currencies are approximately as follows—

One rupee	= 1 66 franc (France, Italy, Belgium, &c)
"	= 1 36 mark (Germany)
"	= 1 6 krona (Austria Hungary)
"	= 0 324 dollar (United States)
"	= 0 85 yen (Japan)

The denominations of currency notes in circulation are 5 10, 9 50 100 500 1,000, and 10,000 rupees.

The Indian mints were closed to the unweighted coinage of silver for the public from the 28th June 1893 and Act VIII of 1893 passed in that date, repealed Sections 19 to 24 of the Indian Coinage Act of 1877 which provided for the coinage at the mints for the public of gold and silver coins of the Government of India. After 1893 no Government rupees were coined until 1897 when under arrangements made with the Native States of Bhopal and Kashmir, the mints of those States were replaced by Government mints. The re-coinage of those States proceeded through the two years 1897 and 1898. In 1899 there was no coinage of rupees, but in the following year it seemed that change was necessary and it was begun in January 1900 the Government purchasing the new rupees, and paying for it mainly with a gold accumulated in the Paper Currency Fund. In that and the following month a crore of rupees was coined and over 17 crores of rupees in the year ending the 31st March 1915, including the rupees issued in connection with the conversion of the currencies of Native States. From the profit accruing to Government on the coinage it was decided to constitute a separate fund called the Gold Reserve Fund as the most effective guarantee against temporary fluctuations of exchange. The whole profit was invested in sterling securities the interest from which was added to the fund. In 1906 exchange had been practically stable for eight years and it was decided that of the coinage profits devoted to this fund, six crores should be kept in rupees in India, instead of being invested in gold securities. The Gold Reserve Fund was then named the Gold Standard Reserve. It was ordered in 1907 that only one-half of the coinage profits should be paid into the reserve, the remainder being used for

capital expenditure on railways. The Gold Standard Reserve was called into action before the year 1907-08 was out. Exchange turned against India, and in March 1908, the Government of India offered bills on the Secretary of State up to half a million sterling, while the Secretary of State sold £1,000,000 Consols in order to meet such demands. During April to August further sterling bills were sold for a total amount of £8,055,000. On a representation by the Government of India, the Secretary of State agreed to defer the application of coinage profits to railway construction until the sterling assets of the Gold Standard Reserve amounted to £25,000,000. On the outbreak of the war in August 1914 the Reserve was drawn upon to meet the demands for sterling remittances, and Government offer to sell £1,000,000 of Bills weekly. The extent of these rates is shown on pp. 191-192.

Gold.

Since 1870 there has been no coinage of double mohurs in India and the last coinage of single mohurs was in the year 1891-92.

Act XXII of 1899 passed on the 15th September 1899 provided that gold coin (sovereign and half-sovereigns) shall be a legal tender in payment or on account at the rate of fifteen rupees for one sovereign.

Silver

The weight and fineness of the silver coins are —

	FINE SILVER. grains.	ALLOY grains.	TOTAL grains.
Rupee	165	15	180
Half-rupee	82½	7½	90
Quarter rupee or 4 anna piece	41¼	3¾	45
Eighth of a rupee or 2-anna piece	20½	1¾	22½

One rupee = 165 grains of fine silver
One shilling = 80½ grains of fine silver
One rupee = shillings 2 0489

Copper and Bronze.

Copper coinage was introduced into the Bengal Presidency by Act XVII of 1835 and into the Madras and Bombay Presidencies by Act XXII of 1844.

The weight of the copper coins struck under Act XXIII of 1840 remained the same as it was in 1835. It was as follows —

	Grains troy
Double piece, or half-anna	200
Piece or quarter anna	100
Half piece or one-eighth of an anna	50
Piece being one-third of a piece or one-twelfth of an anna	33½

The weight and dimensions of bronze coins are as follows —

	Standard weight in grains troy	Diameter in millimetres.
Piece	75	25.4
Half piece	37½	21.16
Pie	25	17.45

Nickel.

The Act of 1906 also provides for the coinage of a nickel coin. It was directed that the nickel one-anna piece should thenceforth be coined at the Mint and issue. The notification also prescribed the design of the coin which has a waved edge with twelve scollops, the greatest diameter of the coin being 21 millimetres and its least diameter 19.8 millimetres. The desirability of issuing a half-anna nickel coin was considered by the Government of India in 1909 but after consultation with Local Governments it was decided not to take action in this direction until the people had become thoroughly familiar with the present one-anna coin.

The Paper Currency.

Under Acts VI of 1839 III of 1840 and IX of 1848, the Presidency Banks of Bengal, Bombay and Madras were authorised to issue notes payable on demand, but the issue of the notes was practically limited to the three cities of Calcutta, Bombay and Madras. These Acts were repealed on the 1st March 1882 by Act XIX of 1881 providing for the issue of a paper currency through a Government Department, by means of notes of the Government of India payable to bearer on demand. Since then no banks have been allowed to issue notes in India.

Act II of 1910 amended and consolidated the law on the subject. By it a note of the value of five, ten, or fifty rupees, as well as a note of any other denominational value which the Governor General in Council may, by notification in the *Gazette of India*, so specify, was declared to be a universal currency note, that is legal tender throughout British India and cashable at any office of issue in British India. The then existing sub-circles of Calcutta, Lahore, Karachi and Calcutt were abolished and the first three of these constituted separate circles of issue in addition to Calcutta Madras Bombay and Rangoon. At the same time, by a notification issued under the Act, the further issue of 20-rupee notes was discontinued. By another notification issued in 1911 under section 2 of the same Act a currency note of the denominational value of one hundred rupees was declared to be a "universal currency note".

Act VII of 1911 raised the invested portion of the Currency Reserve from 12 crores to 14 crores with permission to make the additional investment in sterling securities if desired.

Department of Paper Currency

The function of this department is to issue without any limits promissory notes (called currency notes) of the Government of India payable to the bearer on demand of the denominations of Rs. 5 10 50 100 500 1000 and 10 000 the issue being made in exchange for rupees or half rupees or for gold coin which is legal tender from any Paper Currency office or agency and for gold bullion and gold coin, which is not legal tender from circle offices on the regulation of the Comptroller General.

Supply and issue of Currency Notes.

Currency notes are supplied by the Secretary of State through the Bank of England on an indent from the Head Commissioner. The Head Commissioner or Commissioners supply Currency Agents with all the notes required for the purposes of the Paper Currency Act. Every such note, other than a "universal" note bears upon it the name of the place from which it is issued and every note is impressed with the signature of the Head Commissioner or of a Commissioner or Deputy Commissioner.

The officers in charge of the circles of issue are authorised to issue, from the office or offices established in their circles, currency notes in exchange for the amount thereof (1) in rupees or half rupees or in gold coin which is legal tender under the Indian Coinage Act, or in rupees made under the Native Coinage Act, IX of 1876,

and (2) on the regulation of the Comptroller General, to all treasures, in gold coin which is not legal tender under the Coinage Act or gold bullion at the rate of one Government rupee for 7 533+ grains troy of fine gold. Currency notes can also be issued against gold coin of bullion or silver bullion or sterling securities held by the Secretary of State for India in Council.

Notes when legal tender

Every note is a legal tender in its own circle (except by Government at the office of issue) for the amount expressed in that note. That is to say whenever a note forms the integral sum or a portion of any payment either to Government on account of a revenue or other claim, or to any body corporate or person in British India. It is a legal tender Five, ten fifty and hundred rupee notes are legal tender throughout British India.

Notes of higher denominations than five, ten fifty and hundred rupees are payable only at the office or offices of issue of the town from which they have been issued. In ordinary circumstances every Government treasury of which there are about 250 in British India, cashes or exchanges notes if it can do so without inconvenience and when this cannot be done conveniently for large sums small sums can generally be exchanged for travellers.

Reserve

The whole amount of currency notes in circulation is secured by a reserve of gold and silver coin or bullion and securities of the Government of India or of the United Kingdom. The total amount of such securities is limited to 140 millions of rupees of which not more than 40 millions of rupees may be in sterling securities. Under the Act of 1882 the maximum limit of the securities was fixed at sixty millions of rupees but the issues having largely expanded, the Government of India was empowered by Act VI of 1890 to raise the limit to eighty millions. The power was utilised to raise the invested reserve to seventy millions on the 19th December 1890 and to eighty millions a year later on the 3rd December 1891. By notification No 5366 of the 18th December 1896 the invested reserve was raised to one hundred millions, the power to do so having been given by Act XXI of 1896. Act III of 1905 raised the limit to 120 millions and in August of that year 20 millions of the reserve were invested by the Secretary of State in consols and exchequer bonds. In 1906-09 the exchequer bonds were replaced by Consols. By Act VII of 1911 the limit was raised further to 140 millions, and in April of that year 20 millions were invested by the Secretary of State in Consols.

Currency Chest.

Under the Gold Note Acts of 1898 and 1900 the Government of India had obtained authority to hold a part of the metallic portion of the reserve in gold coin (or temporarily in silver bullion) in London instead of in India. The object of these enactments was merely to afford temporary relief to the Indian money market in seasons of stress. A certain amount of gold had in this way been held in London during 1899 and

1900 but not to any large extent, and the occasion for doing so ceased, except in regard to gold in transit, from the middle of 1900. Act II of 1910 however, gives full power to hold the metallic portion of the reserve or any part of it either in London or in India or partly in both places, and also in gold coin or bullion or in rupees or silver bullion at the free discretion of Government subject only to the exception that rupees should be kept only in India and not in London. A currency chest was accordingly opened in London and a sum of £8 000 000 was remitted from India in pursuance of this policy, and a further sum of £1 045 000 was transferred to the chest from the Secretary of State's balances during the course of 1905-06. On the 31st March 1910 the London currency chest held £ 5 100 000 (Rs. 705 lakhs) on behalf of the Currency Reserve.

Metallic Reserve.

The metallic reserve may consist of sovereigns, half sovereigns, rupees, and half rupees, and gold and silver bullion, the last named being valued at the sum spent on the purchase of such bullion. No gold was contained in the reserve between March 1878 and February 1898 and the quantity increased very slowly until February 1899 but from that date it rose rapidly till the end of March 1900 when it amounted to £7 500 012. Government then took measures to reduce what was considered to be an inconveniently large gold reserve and at the end of March 1901 the value of the gold reserve had fallen to £5 778 518. In the next three years it again increased continuously from £7 023 921 at the end of 1901 to £9 359 564 at the end of 1902 to £10 789 567 at the end of 1903-04. During the next three years it remained practically steady the amount held on the 31st March 1907 being £10 638 841. In 1907-08 the serious monetary crisis in America and the contraction in the exports from India owing to the famine led to a very large increase in the demand for gold at the Currency offices with the result that on the 31st March 1908 the value of the gold reserve had fallen to £6 417 841 inclusive of £3 705 000 held in England. Adverse trade conditions continued in 1908-09 and on the 31st March 1909 the gold reserve had dwindled down to £1 523 414 of which £1 500 000 was held in England. Normal conditions returned in 1909-10 and the stock of gold in the reserve rose to £4 701 716 on 31st March 1910. On the 31st March 1915 the stock in the reserve amounted to £10 200 000 Rs. (1 529 lakhs).

Effect of the War

The outbreak of the war found the Government of India in such a strong financial position that it was able to meet with ease all demands upon it. The effect of the war on Finance (q.v.) and Trade (q.v.) is fully discussed in the article dealing with those two subjects. Here it is sufficient to say that there was a question in the demand for currency, due to the slackness of trade and that the temporary decline of confidence in the Note issue indicated by an unusual demand for encashment in August and September 1914, showed no signs of recurrence. In the words of the London "Economic Journal" the Indian currency system met the crisis better than that of almost any other

country. No moratorium was declared and the exchange value of the rupee was maintained throughout between the gold points.

Of recent years steps have been taken to increase the popularity of the Note issue. The first important measure was the universalisation of Notes up to Rs 100 instead of confining the facilities for encashment to the circle of issue. In 1914-15 two other important steps were taken. It was decided not to re-issue Notes, and so to eliminate the cost and fifth paper that is sometimes found in circulation. Orders were also passed that Government Treasuries should freely exchange Notes for coins and vice versa up to the limit of their power. The introduction of an improved form of Note is under consideration. At the close of the financial year that is to say March 31st 1915 the actual state of the Paper Currency was as follows —

	31st March 1915
	Rs.
TOTAL CIRCULATION	61 63 00 000
Silver Coin in India	32,34 00 000
Gold Coin and Bullion in India	7,64 00 000
Gold Coin and Bullion in England	7 65 00 000
Securities held in India	9 99 99 946
Securities held in England	4 00 00 000
TOTAL RESERVE	61 63 00 000

It was the policy of the Government of India to give gold from the Paper Currency Reserve freely on demand. But when the war broke out, it became apparent that gold was being withdrawn from the Reserve not to meet legitimate demands but to speculate. Sovereigns were at a premium in the bazaar and those who commanded funds took sovereigns from the Paper Currency Reserve and sold them at a profit. Government accordingly declined to issue sovereigns in sums smaller than ten thousand pounds at a time but as the speculators then clubbed together and formed syndicates to withdraw sovereigns an absolute embargo was placed on the issue of gold. The effect of these withdrawals, of the abolition of the Silver Branch of the Gold Standard Reserve and of the transfer of gold from the Paper Currency Reserve to the Gold Standard Reserve in payment of Reserve Councils is seen in the last official statement showing the composition of the Paper Currency Reserve —

	25th November 1915
	Rs.
TOTAL CIRCULATION	61,92,19 990
Silver Coin in India	34 20 93 968
Gold Coin and Bullion in India	7,60,23,106
Gold Coin and Bullion in England	6 15 00 000
Securities held in India	9 99 99 946
Securities held in England	4 00 00 000
TOTAL RESERVE	61 92,19 990

Interest.

The interest accruing on the invested reserve is entered in a separate account, and paid to the credit of the Government of India, under the head

"Profits of note circulation." The interest on the one hundred and forty millions of rupees in the invested reserve amounted in 1914-15 Rs. 44,48,535 the expenditure of the Department being Rs. 18,85,417 and the profit Rs. 25,63,118.

Circulation.

The average monthly circulation of the notes has been in millions of rupees —

Five years ending	1885-86	142.65
"	1890-91	171.67
"	1895-96	232.44
"	1900-01	265.39
"	1905-06	361.80
"	1910-11	481.97
"	1914-15	640.40

The gross circulation of each denomination of note on March 31st 1915 was as follows —

	1915
Rs.	
5-rupee	8,189,106
10	14,988,198
50	28,774
50	243,290
100	1,608,197
500	47,870
1,000	92,687
10,000	15,651
Total pieces	20,262,710
Value	61,62,98,615
According to an official estimate the circulating medium in India (excluding war fluctuations) is approximately as follows —	
Rupees	£ 120,000,000
Sovereigns	£ 40,000,000
Currency Notes	£ 40,000,000

The Gold Standard Reserve

The Gold Reserve Fund was first started in the beginning of 1901 when the profits which had accrued from the coinage of rupees from April 1900 amounting to £3 millions were credited to the fund, gradually remitted to England from time to time and there invested in sterling securities. In the following years the demand for rupees for trade requirements necessitated further heavy coinage and the investments held in the Gold Reserve Fund rapidly swelled by the credit of the profits and the interest thereon and amounted at the close of 1905-06 to £12½ millions. During the latter half of this year abnormal trade activity resulted in an unprecedented demand for silver currency and necessitated exceptionally heavy coinage in a short space of time to avoid the possibility of a recurrence of similar inconvenience a separate silver branch of the Gold Reserve Fund was formed and was brought up to its proposed limit of rupees 6 crores (£4 millions) by March 1907 and after being for a short time known as the "Gold and Silver Reserve Fund" it was finally named the Gold Standard Reserve. At the close of 1906-07, the Reserve contained nearly £17 millions, of which £12½ millions were held in securities £4 millions in rupees in India and the rest in gold in India and as a book credit. It is not necessary in this report to recount the events of the latter half of 1907-08. It will be sufficient to mention that the sale in India during the first half of 1908-09 of sterling bills on London resulted in the withdrawal from circulation in India of some Rs. 12 crores the equivalent being withdrawn in gold by the Secretary of State from the Reserve in London securities to the value of over £8 millions being put on the market. By November 1908, the silver in the Reserve in India had reached 18.85 crores. The subsequent improvement in trade conditions necessitated a portion of this silver being transferred to the Paper Currency Department to meet notes and frequent similar transfers continued to be made, the account being adjusted by a transfer in the opposite direction in London, made in gold from the Cur-

rency Reserve held there to the Gold Standard Reserve. By March 1911 the silver branch in India contained only 2.90 crores and the balance remained at this figure till September 1912 when the resumption of coinage made it possible gradually to increase it up to Rs. 6 crores of which 4½ were held in Bombay.

Effects of the War—The recommendations of the Currency Commission regarding the policy to be pursued towards the Gold Standard Reserve will be found explained in detail in the section Currency Commission (q.v.). Briefly they were that the silver branch of the Reserve should be abolished, and the rupees in the Reserve transferred to the Paper Currency Reserve in exchange for an equivalent in gold, that a much larger gold holding in liquid gold should be aimed at, and that the Secretary of State should be prepared to sell sterling bills and telegraphic transfers on London, or Reverse Councils as they are sometimes called, on demand. Unfortunately the war broke out before there was time for this policy to be carried into effect, so the emergency found the Reserve in a transition stage. The measures adopted were prompt and efficacious. The silver branch of the Reserve was abolished by transferring the rupees therein to the Paper Currency Reserve in exchange for an equivalent in sovereigns, so that the Reserve was composed entirely of gold and gold securities. After a brief interval necessary to consult the Secretary of State, who naturally had to colour his arrangements by the abnormal financial conditions prevailing in London a notification was issued early in August to the effect that Government would be prepared to sell sterling bills and telegraphic transfers on London to the extent of a million sterling a week at the following rates—Bills 1-2-29 8/2d and telegraphic transfers 1-3-27 3/2d. This at once steadied the exchanges, which whilst they have been sluggish, have not fallen below gold point. The appended tables will show the composition of the Gold Standard Reserve brought about by this policy, and the extent of the demand for sterling bills —

Sterling Bills

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Strength of the Reserve—Details of the balance of the Gold Standard Reserve on the 31st March 1915—

In England—

Estimated value on the 31st March 1915 of the Sterling Securities of the nominal value of £18,572,738 (as per details below) 12 142,746

Cash placed by the Secretary of State in Council at short notice 8 322

Deposit of Gold at the Bank of England 1 250 000

In India—

Gold 5 238,184

Temporary loan to Treasury Balances—India 7 000 000

Book credit in Treasury Accounts—India 69 957

TOTAL 25 715 204

Details of Investments—

*British Government 2½ per cent Consolidated Stock 3 266 392

Local Loans 3 per cent Stock 200 000

Guaranteed 2½ per cent Stock 438 720

Transvaal Government 8 per cent Guaranteed Stock 1 092,823

Exchequer 2½ per cent Bonds 16 000

Exchequer 3 per cent Bonds 6 885 600

Canada 3½ per cent. Bonds 161,000

Corporation of London 3½ per cent Debentures 46 000

New South Wales, 3½ per cent Stock 113,000

Do Treasury Bills 760 000

New Zealand 3½ per cent Debentures 45 000

Queensland 4 per cent Bonds 155 000

Do do Stock 55 000

Southern Nigeria 4 per cent. Bonds 350 000

TOTAL 13 572,785

The balance of the Gold Standard Reserve on the 31st October 1915 in India and in England amounted to £25 714 959 and was held in the following form—

(1) Gold in India 8,308,142

(2) Gold deposited at the Bank of England 1 350 000

(3) Cash placed by the Secretary of State for India in Council at short notice 2 409

(4) British and Colonial Government Securities (Value as on 31st October 1915) 13 553,508

(5) Temporary loan to Treasury Balances—India 7 000,000

£ 25 714,959

Sterling Bills—The following table shows the details of the weekly allotments since the reverse remittances were first offered—

Date	Offered	Tendered	Allotted
	£	£	£
August 6, 1914	1 000 000	1 091 000	1 000 000
13 1914	1 000 000	813 000	813 000
20 1914	1 000 000	632,000	632,000
27 1914	1 000 000	528 000	528 000
September 3 1914	1 000 000	474 000	474 000
10 1914	1 000 000	360 000	360 000
17 1914	1 000 000	335 000	335 000
24 1914	1 000 000	348 000	348 000
October 1 1914	1 000 000	375 000	375 000
8 1914	1 000,000	345 000	345 000
15 1914	1 000 000	601 000	601 000
22 1914	1 000 000	427 000	427 000
29 1914	1 000 000	177 000	177 000
November 5 1914	1 000 000		
12 1914	1 000 000	94 000	94,000
19 1914	1 000 000	390 000	390 000
26 1914	1 000 000	560 000	560 000

* A communication dated Delhi, the 11th November stated that the Secretary of State has converted the entire holdings of Consols in the Gold Standard Reserve amounting to £ 3,336,891, into stock of the new war loan to the value of £ 2,177,094. This has been done partly by the acquisition of conversion rights from the public and to a smaller extent by direct tender for the new loan.

Sterling Bills.—The following table shows the details of the weekly allotments since the reverse remittances were first offered.—continued.

Date		Off red	Tendered	Allotted
		£	£	£
December	9 1914	1 000 000	255 000	255 000
	10 1914	1 000 000	371 000	371 000
	17 1914	1 000 000	404 000	404 000
	23 1914	1 000 000	170 000	170 000
	30 1914	1 000 000	50 000	50 000
January	7 1915	1 000 000	100 000	100 000
	14 1915	1 000 000	75 000	75 000
	21 1915	1 000 000		
	28 1915	1 000 000	50 000	50 000
February	4 1915	1 000 000		
	11 1915	1 000 000		
	18 1915	1 000 000		
	25 1915	1 000 000		
March	4 1915	1 000 000		
	11 1915	1 000 000		
	18 1915	1 000 000		
	25 1915	1 000 000		
April	1 1915	1 000 000		
	8 1915	1 000 000		
	15 1915	1 000 000		
	22 1915	1 000 000		
	29 1915	1 000 000		
May	6 1915	1 000 000		
	13 1915	1 000 000		
	20 1915	1 000 000		
	27 1915	1 000 000		
June	3 1915	1 000 000	100 000	100 000
	10 1915	1 000 000	206 000	206 000
	17 1915	1 000 000	180 000	180 000
	24 1915	1 000 000	155 000	155 000
July	2 1915	1 000 000	180 000	180 000
	9 1915	1 000 000	1 075 000	1 000 000
	16 1915	1 000 000	524 000	524 000
	23 1915	1 000 000	850 000	850 000
	30 1915	1 000 000	843 000	843 000
August	6 1915	1 000 000	455 000	455 000
	13 1915	1 000 000	345 000	345 000
	20 1915	1 000 000	15 000	15 000
September	3 1915	1 000 000		
	10 1915	1 000 000		
	17 1915	1 000 000	50 000	50 000
	24 1915	1 000 000		
October	1 1915	1 000 000		
	7 1915	1 000 000		

GROSS REVENUE IN INDIA AND ENGLAND IN £ (15 RUPES = £1)

HEADS OF REVENUE		1905-6	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12	1912-13
PRINCIPAL HEADS OF REVENUE									
Land Revenue	£	18,835,985	19,792,791	19,710,322	19,759,060	21,332,141	20,877,521	20,764,097	21,251,682
Opium	£	5,489,780	5,690,528	6,244,968	5,984,788	5,534,083	7,581,963	5,061,279	5,184,092
Salt	£	4,876,410	4,963,706	3,838,968	3,278,159	3,819,518	3,175,950	3,891,122	3,234,874
Stamp	£	3,920,384	4,932,908	4,259,049	4,344,166	4,548,304	4,311,681	4,535,129	5,099,115
Provincial Rates	£	5,687,880	5,698,219	6,227,010	6,859,628	6,537,854	7,030,814	7,068,753	8,277,913
Customs	£	953,664	514,671	535,829	533,595	539,223	6,345,378	6,348,060	5,024,149
Excise	£	4,348,017	4,367,692	4,904,494	4,906,118	4,906,118	6,019,009	6,019,009	7,146,149
Assessed Taxes	£	1,321,393	1,423,787	1,604,113	1,553,418	1,558,984	1,588,591	1,588,591	1,716,597
Forest	£	1,770,566	1,769,911	1,732,610	1,709,964	1,725,266	1,823,837	1,983,179	2,153,989
Registration	£	361,959	379,732	415,311	430,938	430,977	425,855	445,826	462,082
Tributes from Native States	£	567,430	600,986	584,520	589,636	588,307	607,447	595,008	692,642
TOTAL		47,557,869	48,780,935	47,556,932	49,294,535	51,089,975	55,040,985	54,295,240	55,858,930
INTEREST		824,181	972,193	986,737	987,325	1,184,343	1,435,439	1,443,741	1,478,709
POST OFFICE		1,650,24	1,751,146	1,823,909	1,825,020	1,927,229	1,996,922	2,184,279	2,282,428
TELEGRAPH		909,854	963,006	1,006,797	978,097	902,851	997,159	1,087,425	1,174,124
R.R.		321,182	419,488	443,916	402,654	425,639	496,110	567,100	687,359
EXPENDITURE BY CIVIL DEPARTMENTS									
Law and Justice		275,688	271,428	264,087	280,117	291,339	810,643	320,460	353,051
Courts of Law		259,229	251,718	254,403	240,234	230,155	287,791	313,824	375,092
Jails		169,872	150,810	153,631	168,123	158,930	155,375	173,758	156,833
Police		146,496	143,982	158,870	139,698	140,083	146,531	151,737	154,746
Ports and Pilotage		136,436	140,588	145,256	138,430	153,500	166,531	205,616	238,138
Education		89,316	83,306	82,469	106,548	106,548	163,697	94,847	62,565
Medical		84,523	86,782	86,134	106,506	109,439	113,432	114,165	111,904
Scientific and other Minor Departments		1,134,210	1,100,890	1,097,919	1,145,877	1,148,075	1,211,128	1,238,131	1,394,847
TOTAL		1,134,210	1,100,890	1,097,919	1,145,877	1,148,075	1,211,128	1,238,131	1,394,847
MISCELLANEOUS RECEIPTS									
Grants in aid of Superannuation &c		196,421	191,887	221,626	195,011	192,036	195,489	201,470	200,286
Stationery and Printing		78,716	78,745	91,472	95,568	85,324	97,656	96,891	92,078
Exchange		82,870	190,042	94,511	44,481	44,481	70,084	106,697	100,697
Miscellaneous		324,487	478,947	804,012	285,126	378,997	314,662	409,018	571,864
TOTAL		687,493	939,601	711,631	675,705	706,339	677,991	618,076	765,207

GROSS REVENUE IN INDIA AND ENGLAND IN £ (15 RUPES=£1)—(contd.)

HEADS OF REVENUE	1905-6	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12	1912-13
RAILWAYS								
State Railways (Gross Receipts)	23 669 570	25 781 076	27 260 944	28 799 888	28 993 931	30 929 756	33 579 189	30 683 364
Deduct—								
Working Expenses and Surplus Profits paid to Companies	11 647 231	13 232 245	15 078 854	16 913 089	16 536 501	16 787 641	17 745 049	19 391 729
Net Receipts	11 042 348	12 548 831	12 219 110	9 886 799	12 357 430	13 842 115	15 834 080	17 391 635
Standard Companies (Net Traffic Receipts)	921 875	895 601	228 615	—061	—48	—	—	3 990
Standard Companies (Government share of Surplus Profits and Employment of Advances of Interest)	42 628	66 189	52 608	72 208	66 599	39 846	57 045	73,174
TOTAL	12,006 951	12 983 820	12 499 331	9,958 041	12 445 378	13,581 461	15 891 725	17 371 799
IMMIGRATION								
Major Works	1 869 156	2,342,231	2 298 074	2,247 624	2,307 977	2 288 051	2,331 533	3,407 478
Direct Receipts	948 279	1 000,981	1 040 538	1 091 044	1 117,386	1 178 006	1,251 466	1 538,945
Portion of Land Revenue due to Irrigation	164 678	189 705	232,046	219 384	235 631	228 465	247 054	366 494
TOTAL	3 002 608	3 632,917	3 480,592	3 558 002	3 660 166	3 694,321	3,690 053	4 411,217
OTHER CIVIL PUBLIC WORKS	254 604	237 865	249 069	257 938	268 766	298 833	326,924	355 447
REVENUE BY MILITARY DEPARTMENT.								
Active	1 053 373	1 095 514	908 549	764 740	875,557	949 154	1 031 030	1 107 244
Non-effective	131 028	123 055	118 930	98 199	102 471	110 495	115 396	120,566
Re-organisation	1 189 696	1,217,569	1 062 479	862 989	977,228	1 068 649	1 179 366	1,227,903
TOTAL	143,770	148 176	87 688	135 449	89 480	91 787	84 900	87,660
	49 306	56,989	57 268	59 254	76 773	70 593	75,791	72,163
TOTAL	1 983 772	1 410 748	1 167 438	1 047 641	1 136 961	1,221 029	1 343,067	1,387 034
TOTAL	70 841 869	73 144 554	71 008 275	69 701 535	74 698 495	80 682 478	82,885,700	85,503,598

50 000
455 000
345 000
15 000

The Currency Commission.

The Royal Commission on Indian Currency and Finance was appointed in April 1913, in order to inquire into certain questions arising out of the management of the Indian currency system and the control of Indian finance. For some years, and particularly since the American crisis of 1907 when the Indian currency system was severely tried, much criticism had been levelled against the manner in which the principles laid down by the Fowler Committee of 1894 had been developed, and against the extent to which Indian funds and reserves had been drawn to London. These criticisms were brought to a head when strong complaint was made in Parliament of the agency through which large purchases of silver were made for the Government of India in 1912.

It was to settle these issues that the Commission was appointed, and it took evidence throughout the latter part of the year 1913.

The Royal warrant appointing the Commission named Mr. Austen Chamberlain M.P. as Chairman and the following members: Lord Faber, Lord Kilbracken, Sir Robert Chalmers, Sir Ernest Cable, Sir Shapurji Broacha, Sir James Begbie, Mr. E. W. Gillan C.S.I., Mr. H. N. Gladstone, and Mr. John Maynard Keynes. The personnel of the Commission commanded a wide measure of confidence. Mr. Austen Chamberlain's long connection with the Treasury made him an excellent Chairman. Lord Faber was well known as the organizer of the Country Bankers Association. Lord Kilbracken was long connected with the India Office as Sir Arthur Godley. Sir Henry Chalmers in addition to his long experience at the Treasury, was Secretary to the Fowler Committee (he was appointed Governor of Ceylon and left England during the recess). Sir Ernest Cable is one of the best known business men of Calcutta. Sir Shapurji Broacha is the foremost Indian broker of Bombay. Sir James Begbie, a Presidency Banker and economist of great experience, is the senior Presidency Banker in India. Mr. Gillan after filling the office of Comptroller General and head Commissioner of Paper Currency in India with distinction holds the post of Financial Secretary to the Government of India. Mr. Gladstone is partner in an important Calcutta firm and adds to his Indian experience a knowledge of business conditions in London. And Mr. Keynes is a well-known writer on economics who has devoted a considerable amount of attention to the Indian currency system. But apart from the actual personnel of the Commission, it was recognised that the Government, in appointing to the Commission none who were strongly identified with the system under criticism had given conspicuous evidence of their desire to investigate impartially the whole question.

Terms of Reference.

The specific points referred to the Commission were to inquire into the location and management of the general balances of the Government of India, the sale in London of Council Bills and transfers, the measures taken by the Indian Government and the Secretary of State for India in Council to maintain the exchange value of the rupee in pursuance of,

or supplementary to the recommendations of the Currency Committee of 1894, more particularly with regard to the location, disposition, and employment of the Gold Standard and Paper Currency Reserves, and whether the existing practice in these matters is conducive to the interests of India, also to report as to the suitability of the financial organisation and procedure of the India Office and to make recommendations. To understand the trend of the inquiry it is necessary to hark back a little. The currency system of India until 1893 was based on the free coinage of silver. Anyone tendering silver bullion at the Indian mints was entitled to receive an equivalent quantity of silver rupees, whose par value was two shillings. But the discovery and development of the silver mines in America and elsewhere so vastly increased the quantity of silver produced that its value measured in gold rapidly declined. At one time the gold value of the rupee fell as low as a fraction over a shilling. This caused great embarrassment to the Government of India, which has every year to meet in gold in England large sums included generally under the name of the Home Charges. These include interest on the sterling debt, pensions and furlough allowances payable in England and stores. They amount roughly to eighteen million pounds sterling a year. The depreciation in the sterling value of the rupee necessitated the device of a larger and larger number of rupees to this purpose until the alternatives were either the imposition of additional taxation to a point which would be politically dangerous, or the adoption of some measures to raise the exchange value of the rupee. Between 1878 and 1892, when these difficulties were most acute the main object of the Government of India was to facilitate an international agreement which might cause a rise in the gold price of silver and thus diminish the inconvenience arising from the retention of a silver standard for India. But when the prospects of an international agreement receded it was then decided to take independent action. Acting on the recommendations of a Committee which was appointed in 1892 and reported in 1893, commonly called after its President, the Herchell Committee the Government decided to close the Indian Mints to the free coinage of silver and to announce that although closed to the public, the mints would issue rupees to the public in exchange for gold at the ratio of fifteen to one, equivalent to one shilling and four pence the rupee.

The Indian System.

The effect of this policy was steadily to raise the exchange value of the rupee, until in 1896 it had approximately reached the ratio to gold of fifteen to one. The next point was to determine what further steps should be taken to give full effect to the principles laid down by the Herchell Committee and accepted by both Governments. These questions were referred to the Commission presided over by Sir Henry Fowler which reported in 1896. This Commission produced a report of remarkable lucidity and ability, and contrary to general expectation it was practically unanimous. It recommended that a gold standard

should be established, and the ratio between the rupee and the sovereign was to be fifteen to one. The mints were to be opened for the coinage of gold but to remain closed to the public for the coinage of silver. Government mints were to have the right to coin silver, subject to directions laid down and the profits accumulated from this coinage were to be accumulated to form a special reserve in gold. It is of the greatest importance to remember that the Fowler Committee recommended that there should be the normal accompaniment of a gold standard—a gold currency and a gold mint, and emphatically put aside the suggestion that there should be a gold standard without a gold currency—a system which has since obtained some measure of academic support under the name of the gold exchange standard. The chief criticisms of the policy actually pursued centre round the broad basis that whilst accepting the Fowler Committee's recommendations in principle the Government of India, or rather the Secretary of State acting on the advice of a Finance Committee on which the Indian element was reduced until it disappeared, departed from them in practice. With this introduction, we can consider the criticisms levelled at the practices specifically referred to the Chamberlain Committee.

Cash Balances.

The cash balances of the Government of India are held in part in India and in part in London. This arises from the necessity of meeting obligations in both countries. Formerly the Secretary of State managed his disbursements with a balance of between four and five millions sterling. But from 1907 onwards this policy was reversed and enormous balances were heaped up in London.

The growth of these balances is illustrated by the following figures —

	£
1907	4,607,266
1908	7,983,896
1909	12,709,090
1910	16,687,245
1911	15,292,688
1912	18,890,013

It was contended that these balances should have been retained in India, and there used either for the reduction of taxation or for expenditure on ameliorative works like education, sanitation and medical relief. The official explanation was that these balances were drawn to London to meet the convenience of trade which had grown used to the convenience afforded by the sale of Council Bills far in excess of the Secretary of State's budgeted demands. Arising out of this question was a subsidiary one. It was remarked that the whole of the Secretary of State's cash balances were lent in London at low rates of interest. In part these went to "approved" borrowers, on security, and when these were glutted, to the London joint stock banks—including those banks represented on the Finance Committee of the India Office Council—without security. On the other hand the surplus balances of the Government of India in India were withdrawn from the money market and locked up in the Reserve Treasury, with the effect of making money artificially dear every busy season, to the great disadvantage of the internal trade,

and all attempts to have these funds placed at the disposal of the market had met with a practical non success.

Council Bills.

Arising out of this question of the balances in London was the subsidiary one of the rates at which the Secretary of State sold Bills and Telegraphic Transfers on India. The Secretary of State has to meet his Home Charges in London. To do this he sells what are called Council Bills every week. These Bills are offered for tender at the Bank of England every Wednesday morning and successful tenderers are given Bills on Bombay, Calcutta and Madras, which are cashed at the Treasuries inasmuch as a fortnight is lost by the time in transit, it is worth paying extra to obtain what are called Telegraphic Transfers by means of which rupees can be obtained from the Treasuries in India almost immediately after the payment of gold into the account of the Secretary of State in London. Telegraphic Transfers usually sell at a rate of one thirty-second above the rate for Bills. In addition to the weekly allotment the India Office sell bills called "specials" between the weekly allotments, at one thirty-second above the auction rate. The criticism directed against this practice was to the effect that on occasion lower rates were accepted than might have been obtained and that Bills against the Gold Standard and Paper Currency Reserves were sold below gold export point, thereby diverting the natural flow of gold to India.

Exchange Value of the Rupee.

The buttress of the gold standard under the system recommended by the Fowler Committee was to have been twofold—a gold currency and a special reserve, built up out of the profits on coining. It was made the ground of criticism that having decided to adopt these principles, the India Office did practically nothing to establish an effective gold circulation. After one abortive attempt, the policy of accustoming the people to a gold circulation was abandoned. On the other hand, the coining of rupees was prodigiously heavy. During the years 1905-07 £42 millions' worth of rupees were added to the token currency which is said to be the heaviest coinage in the history of the world. The result was that instead of endowing India with a gold currency and a subsidiary token coinage, the vast bulk of the metallic circulation was in rupees. The standard was gold, but the circulating medium was silver. According to the latest returns the currency of India is made up of sixty crores of gold, sixty crores of notes, and one hundred and eighty crores of rupees. A certain amount of gold has flowed into the country and had passed into the circulation in the form of sovereigns, but it was contended that the prodigious coining of token rupees, the lack of any definite policy to popularise the sovereign, and the failure to open the Indian mints to the coinage of a gold piece of more convenient value than the fifteen rupee sovereign, had resulted in the establishment of a system never contemplated by the Fowler Committee, namely, an enormous token currency with a small gold circulation.

Gold Standard Reserve

Falling an effective gold circulation the fund formed from the profits on coining, called the Gold Standard Reserve became the only effective buttress of exchange. It was complained that whereas the principles laid down for the management of this fund were clear and definite they had been systematically departed from in practice. For instance it is now admitted that the Fowler Committee meant that this fund should be held in gold in India. Contrary to the express desire of the Government of India, the Secretary of State decided that it should be held in securities in London. Then in 1906 in order to meet an embarrassing demand for rupees at the height of the busy season in India it was decided to hold £4 millions of the Reserve in silver in India. In 1907 pressed to find money for railway construction in India, the India Council decided to devote half the profits on coining to capital expenditure on railways. These changes were made without consulting the great commercial interests affected and so far as the diversion of a moiety of the profits on coining were concerned in direct opposition to the policy of the Government of India.

The critics maintained that their position was made good by the results of the crisis in America in 1907. The sudden cessation of the demand for Indian produce caused by the financial collapse in the United States combined with a partial famine in India and the heavy arrival of imports in response to long dated contracts, reversed the tide of exchange for the first time since the gold standard was established. There was a demand for gold in London rather than for rupees in India. The Gold Standard Reserve, which should have been readily available for this purpose, then stood at £50,000 in money at short notice and £14 million in securities. There is no doubt that the weakness of the position thus revealed paralysed the action of the Government when the emergency arose. Council Bills were unsaleable. Gold was released only in dribbles of £10,000 at a time, and exchange which was to have been maintained at one and four pence fell to one-threepence eleven-sixteenths. Later the India Office had to agree to sell sterling bills on London at gold export point and £8 millions were taken in this way before the demand was stayed. Various other expedients had to be adopted in order to weather the storm and it has been calculated that the deterioration in the Secretary of State's position in the year of the crisis was not far short of £25 millions. This experience has been cited as illustrative of the necessity of strengthening the gold reserves of India without any further tampering with the Gold Standard Reserve, of allowing that Reserve to grow without limit, and of keeping a substantial portion, if not the whole in actual gold.

Apart from the withdrawal of the Gold Standard Reserve to London and its investment there, under an Act of 1905 a sum of £6 million of gold in the Paper Currency Reserve was withdrawn from the Indian treasuries and deposited in the Bank of England under the unshared control of the Secretary of State. The declared object of this fund was to facilitate

the purchase of silver for coining. On the other hand critics pointed out that inasmuch as the Paper Currency was only redeemable in India, the proper place for the Paper Currency Reserve was in India and not in London. Further, that although the fund was specially removed to London for the purchase of silver, silver had since been purchased from the cash balances.

Financial Organisation of the India Office.

The financial business of the India Office is managed by the Finance Committee. This Committee exercises very wide powers in practice, it is said the powers of the India Office are mainly exercised by the different committees into which it is divided. The collective authority and influence of the Council are weak, and the Secretary of State and the Committees are supreme. Whilst this generally applies to the work of the India Office, it applies with particular force to the work of the Finance Committee. Finance is a technical subject, with which few of the members of the Council are competent to deal. Moreover, much of the work must be done from day to day, and cannot wait for the weekly meeting of the Council. It was made a matter of complaint that the constitution of this Committee, which to use the words of an ex-Viceroy Lord Curzon exercises wide powers, and acts, not only as financial arbiter but almost financial autocrat had undergone a marked change. Whilst formerly there used to be upon it some member who had served the Government of India in the Finance Department, and on occasion a member who had been in the employ of one of the Presidency Banks, this Indian element had been gradually reduced to vanishing point, until the Finance Committee of the India Office Council consisted of two London joint stock bankers and one member of the Home Civil Service none of whom had any experience of Indian conditions. It was argued that the Finance Department of the Government of India should always be represented on this Committee, by a retired officer and if practicable, the Presidency Banks and Indian Commerce and industry.

The Evidence

The Commission commenced its sittings on May 27th, and rose for the recess on August 6th. It then issued what has been called an interim report but which never pretended to be anything of the sort, and was confined to a reprint of the evidence given up to that point without comment of any description. This blue book contained the important correspondence which had passed between the Government of India and the India Office on currency and finance questions, together with memoranda from the India Office outlining their policy on the principal subjects under examination. It also contained the evidence of the official witnesses on behalf of the India Office—Mr Lionel Abrahamson, C. B. Assistant Under Secretary of State for India, Mr F. W. Newmarch, Financial Secretary at the India Office, Mr Walter Beddoe, C.S.I., Accountant General at the India Office and Mr H. H. Scott, Broker to the Secretary

of State in Council. Then followed many miscellaneous witnesses, whose names and qualifications are given below.

Sir Daniel Mackinnon Hamilton nominated by the Bengal Chamber of Commerce Indian landowner.

Mr J A Toomey Manager of the National Bank of India, Limited.

Mr T Fraser Manager of the Chartered Bank of India, Australia and China. Nominated as their representatives by the Exchange Banks doing business in India.

Mr O T Barrow C.S.I., formerly Comptroller and Auditor General in India (1905-1910) retired. Witness on behalf of the Government of India.

Mr Alfred Clayton Cole, Governor of the Bank of England, 1911-1913.

Mr Harry Marshall Ross retired Calcutta Export Merchant, late Honorary Secretary Central Committee, Indian Currency Association. Nominated by the Bengal Chamber of Commerce.

Sir Alexander McRobert Indian Woollen Manufacturer a former President of the Upper India Chamber of Commerce and a former Member of the Legislative Council of the United Provinces. Nominated by the United Provinces Government.

Mr Bhupendra Nath Mitra, C.I.E. Assistant Secretary to the Government of India in the Finance Department. Witness on behalf of the Government of India.

Mr James N Graham nominated by the Bombay Chamber of Commerce.

The Hon Montagu de F Webb C.I.E. Chairman of the Karachi Chamber of Commerce.

Mr William Bernard Hunter Secretary and Treasurer of the Bank of Madras and Chairman of the Madras Chamber of Commerce.

Mr Charles Campbell McLeod, nominated by the Bengal Chamber of Commerce and the East India Section of the London Chamber of Commerce.

Mr Marshall F Beld C.I.E. Merchant, Member of the Legislative Council, Bombay.

Mr Le Marchant, a former Member of the Indian Council and a former Chairman of its Finance Committee. A Member of the Indian Currency Committee of 1898.

Mr L G Dumbur, Secretary and Treasurer of the Bank of Bengal.

Mr H F Howard, C.I.E. J.C.S. Collector of Customs Calcutta. Witness on behalf of the Government of India.

Mr Thomas Smith nominated by the Government of the United Provinces for his knowledge of the Currency and Banking problems of North India.

Mr M R. Sundara Iyer Secretary to the Economic Association Madras. Nominated by the Madras Government.

Final Meetings.

The Committee re-assembled on October 23rd and sat until November 14th. During this period it heard the following witnesses:—

Sir James Meiston, K.C.S.I. Lieutenant Governor of the United Provinces and formerly Secretary to Government in the Financial Department.

Mr Morton Frewen.

Mr Vidya Sagar Pandya, Secretary of the Indian Bank Ltd., Madras. Nominated by the Madras Government.

Mr Stanley Reed M.D. Editor of The Times of India. Bombay.

Mr F C Harrison C.S.I., Indian Civil Service (retired) who has held various posts in the Finance Department.

Mr Laurence Currie Member of the Indian Council and its Finance Committee.

Lord Inchcape a former member of the Indian Council and a former Chairman of its Finance Committee.

Sir Felix Schuster Bart Member of the Indian Council and Chairman of its Finance Committee.

Mr Dadaba Wermanjee Dalal Senior Partner Messrs Wermanjee and Sons Stock Bullion Exchange and Finance Brokers Bombay. Nominated by the Bombay Government.

Sir Guy D A Fleetwood Wilson C.I.E. K.C.B. K.C.M.G. late Finance Member of the Viceroy's Council.

Mr Lionel Abraham, C.B. Assistant Under Secretary of State for India.

Sir T W Holdenness, K.C.S.I., Under Secretary of State for India.

THE REPORT

The report was dated February 24th, 1914, some delay occurring through the necessity of referring it to Sir Henry Chalmers, who had taken up his post as Governor of Ceylon and Sir Shapurji Broacha, who had been obliged to return to Bombay on account of the severe financial crisis consequent on the failure of certain of the swadeshi banks. The report was long and detailed, so the Commission furnished a summary of it which condensed their opinions and recommendations in the following passages:—

1. The establishment of the exchange value of the rupee on a stable basis has been and is of the first importance to India.
2. The measures adopted for the maintenance of the exchange value of the rupee have been necessary and rightly rather exp-

lementary to than in all respects directly in pursuance of the recommendations of the Committee of 1898.

3. These measures worked well in the crisis of 190-08 the only occasion upon which they have been severely tested hitherto.
4. The time has now arrived for a reconsideration of the ultimate goal of the Indian Currency system. The belief of the Committee of 1898 was that a Gold Currency in active circulation is an essential condition of the maintenance of the Gold Standard in India, but the history of the last 15 years shows that the Gold Standard has been firmly secured without this condition.

5. It would not be to India's advantage to encourage an increased use of gold in the internal circulation.
6. The people of India neither desire nor need any considerable amount of gold for circulation as currency and the currency most generally suitable for the internal needs of India consists of rupees and notes.
7. A mint for the coinage of gold is not needed for purposes of currency or exchange, but if Indian sentiment genuinely demands it and the Government of India are prepared to incur the expense there is no objection in principle to its establishment either from the Indian or from the Imperial standpoint provided that the coin minted is the sovereign (or the half sovereign), and it is pre-eminently a question in which Indian sentiment should prevail.
8. If a mint for the coinage of gold is not established refined gold should be received at the Bombay Mint in exchange for currency.
9. The Government should continue to aim at giving the people the form of currency which they demand whether rupees, notes or gold, but the use of notes should be encouraged.
10. The essential point is that this internal currency should be supported for exchange purposes by a thoroughly adequate reserve of gold and sterling.
11. No limit can at present be fixed to the amount up to which the Gold Standard Reserve should be accumulated.
12. The profits on coinage of rupees should for the present continue to be credited exclusively to the Reserve.
13. A much larger proportion of the Reserve should be held in actual gold. By an exchange of assets between this Reserve and the Paper Currency Reserve, a total of about £10,000,000 in gold can be at once secured. This total should be raised as opportunity offers to £15,000,000 and thereafter the authorities should aim at keeping one-half of the total Reserve in actual gold.
14. The Indian branch of the Gold Standard Reserve in which rupees are now held should be abolished the rupees being handed over to the Paper Currency Reserve in exchange for gold.
15. The proper place for the location of the whole of the Gold Standard Reserve is London.
16. The Government should definitely undertake to sell bills in London at the rate of 1s. 3d. 3/4 per rupee when ever called upon to do so.
17. The Paper Currency system of India should be made more elastic. The fiduciary portion of the note issue should be increased at once from 14 crores to 20 crores, and thereafter fixed at a maximum of the amount of notes held by Government in the Reserve Treasuries plus one-third of the net circulation, and the Government should take power to make temporary investments or loans from the fiduciary portion within the maximum in India and in London, as an alternative to investment in permanent securities.
18. We recommend the immediate universalisation of the 500 rupee note and the increase of the facilities for the encashment of notes.
19. The aggregate balances in India and London in recent years have been unusually large. This has been due mainly though not entirely to accidental causes and to the exceptional prosperity of India.
20. Caution is justifiable in framing Budgets in India but has been carried rather further than was necessary in recent years.
21. A change in the date of the commencement of the financial year from the 1st April to the 1st November or the 1st January would probably enable the Government of India to frame more accurate Budgets. Such a change would also enable the India Office to fix the amount of their borrowings in London with closer regard to immediate needs. We commend this proposal for favourable consideration.
22. The practice of transferring revenue surplus to London to be used in avoiding or reducing fresh borrowings for capital expenditure has been thoroughly justified in the interest of India, and the Secretary of State has made good use for this purpose or for actual reduction of debt, of the balances from time to time accumulated in his hands.
23. But the recommendations which we make as regards loans by Government in India may lead to a revision of the occasions though not of the extent, of transfers of money to London.
24. The independent Treasury system of the Indian Government is not an ideal one. It is partly responsible for the stringency which recurs annually in the Indian money markets.
25. We recommend that the Government of India should make a regular practice of granting loans to the Presidency Banks from their surplus balances in India against security on terms to be negotiated with the Presidency Banks.
26. In deciding upon the location of surplus balances, the Government of India and the Secretary of State should act in consultation, and while the transmission of the necessary funds to London at favourable rates of exchange is the first consideration the authority should have regard to all the factors including the possibility of utilising surplus balances for loans in India.
27. In carrying out these recommendations, the authorities should proceed tentatively and with caution.
28. We recommend that the amount of the annual rupee loans in India should be increased as much as possible. The figures of recent loans appear to have been somewhat over cautious. We call attention to the questions of relaxing

- present regulations in regard to endorsements on rupee paper and of creating new forms of securities
- 29 The Secretary of State sells Council Drafts, not for the convenience of trade but to provide the funds needed in London to meet the requirements of the Secretary of State on India's behalf
- 30 The India Office perhaps sold Council Drafts unnecessarily at very low rates on occasions when the London balance was in no need of replenishment but we do not recommend any restrictions upon the absolute discretion of the Secretary of State as to the amount of drafts sold or the rate at which they are sold, provided that it is within the gold points. The amount and occasion of sales should be fixed with reference to the urgency of the Government's requirements and the rate of exchange obtainable, whether the drafts are against Treasury balances or against the Reserves.
- 31 There has been some excess of caution in the renewal of debt by the India Office during recent years.
- 32 The system of placing portions of the India Office balance out on short loan with approved borrowers in the city of London is on the whole well managed but we draw attention to—
- (a) The term for which loans are made
 - (b) The desirability of giving greater publicity to the methods by which admission is gained to the list of approved borrowers.
 - (c) Some defects in the list of approved securities and especially its narrow range.
- 33 There is no ground for the suggestion that the City members of the Secretary of State's Council showed any kind of favouritism in placing on deposit with certain banks, with the directorates of which they were connected, a part of the India Office balance at a time when it was too large to be placed entirely with the approved borrowers. But we call the attention of the Secretary of State to the desirability of avoiding as far as possible all occasion for such criticism, though it may be founded on prejudice and ignorance of the facts
- 34 We observe that in our opinion the time has come for a general review of the relations of the India Office to the Bank of England.
- 35 The working of the present arrangements for the remuneration of the Secretary of State's broker should be watched, and if necessary they should be revised.
- 36 We record our high opinion of the way in which the permanent staff, both in India and in London, have performed the complicated and difficult financial duties placed upon them
- 37 We recommend a continuance of a Finance Committee of Council as providing the machinery most suitable for the work required.
38. The Finance Committee should, if possible, contain three members with financial experience representing—
- (a) Indian Official Finance.
 - (b) Indian Banking and Commerce.
 - (c) The London Money Market.
- In any case there should be at least one member with Indian financial experience. The absence of any representative of Indian finance on the Committee since 1911 has resulted in giving undue prominence to the representation of London City experience.
- 39 While we suggest that the changes recently proposed and now under discussion in the constitution of the India Council may require some modification in order to provide for the continuance of a Finance Committee of Council we are in sympathy with the desire for expediting financial business, which is one of the objects in view
40. The present arrangement under which the Assistant Under Secretary of State, having financial experience, is able to share with the Financial Secretary the responsibility for financial business in the India Office has many advantages. For the future we recommend that either (1) the Under Secretary or Assistant Under Secretary of State should have financial experience as at present, or (2) there should be two Assistant Under Secretaries, of whom one should have financial experience
- 41 We are not in a position to report either for or against the establishment of a State or Central Bank but we regard the subject as one which deserves early and careful consideration and suggests the appointment of a small expert committee to examine the whole question in India, and either to pronounce against the proposal or to work out in full detail a concrete scheme capable of immediate adoption.

A Note of Dissent.

The report was signed by Sir James Begbie subject to a note of dissent. In this he pointed out that the currency policy directed to the attainment of stability in the exchange value of the rupee by means of gold reserves collected from the profits realised on the sale of rupees had brought into existence an extensive token currency which was not a desirable form of currency for a country which absorbs gold on a very large scale. Sir James Begbie therefore held the view

That the true line of advance for the currency policy is to discourage an extension of the token currency by providing increased facilities for the distribution of gold when further increases in the currency become necessary. These greater facilities should, I consider, include the issue of gold coins from an Indian mint of a value more suitable for general currency use than the sovereign and half-sovereign, for the purpose of assisting the distribution of gold when, as is frequently the case, the balance of trade is strong in India's favour and gold arrives in considerable quantities.

ties. I also think that supplies of gold coins should be laid down in the up-country districts with the object of giving the general public effective opportunities of obtaining gold coins.

Action in India

The publication of the report aroused surprise little interest. Only one paper in India, and none in England, exhaustively analysed it. Broadly speaking, it may be said that the report was approved by those engaged in the foreign trade, whilst a strong body of those interested in the internal trade shared the views of Sir James Beggie. The statement of the Commission that India neither desires nor needs a gold currency, was warmly canvassed and in an address to the Finance Member in July the Indian Merchants' Bureau declared that the currency needs of India are silver and gold not notes, and gold rather than silver.

But whilst action on the report as a whole has been deferred until after the termination of the war—indeed it is doubtful if any sort of general pronouncement will be made on the report because of the great changes effected by the war—partial action has been taken in order to meet immediate necessities. Thus in 1914 the silver branch of the Gold Standard Reserve was abolished, the rupees held in that reserve being exchanged for an equivalent in gold taken from the Paper Currency Reserve. The Gold Standard Reserve—it is sometimes called the Gold Reserve Fund—now consists entirely of gold and gold securities. In 1914 a notification was issued guaranteeing to note sterling drafts on the Secretary of State in London—these are called for convenience Reverse Councils—at gold export point on demand. The extent of this demand will be found in the section dealing with the Paper

Currency and the Gold Standard Reserve (see ante). Another important step was taken by the Secretary of State when he announced that he had exchanged the Consol holding in the Gold Standard Reserve for the new four and a half per cent. loan. The official communique said — the Secretary of State has converted the entire holdings of Consols in the Gold Standard Reserve amounting to £3,266,591 into stock of the new war loan to the value of £2,177,594. This has been done partly by the acquisition of conversion rights from the public and to a smaller extent by a direct tender for the new loan. In the autumn of 1914, when there seemed to be every likelihood of a complete break in the price of cotton unless special steps were taken to enable holders to carry the crop the Government of India stiffened the money market by offering the Presidency Banks loans from the Paper Currency Reserve in order to assist in the financing of threatened trades. This help was not needed because cotton recovered its value with surprising celerity and there has been a surplus rather than a deficiency of money on account of the paralysis of trade and the reduced demand. The question of a State Bank is in abeyance. When the scheme was first mooted its reception was generally hostile. It was impossible to see how the interests of the three Presidency Banks and of the large Joint Stock and Exchange Banks could be reconciled with a great State institution. Since then there has been a certain relaxation of feeling though opinion is still nicely divided and there are many who whilst not hostile to a State Bank *per se* are inclined to think that Government can be of more assistance in time of crisis by retaining outside banking and placing its resources at the disposal of the market through the Presidency Banks in time of pressure.

The Railways.

The history of Indian Railways very closely reflects the financial vicissitudes of the country. Not for some time after the establishment of Railways in England was their construction in India contemplated, and then to test their applicability to Eastern conditions three experimental lines were sanctioned in 1845. These were from Calcutta to Raniganj (120 miles) the East Indian Railway, Bombay to Kalyan (33) miles Great Indian Peninsula Railway, and Madras to Arkonam (30 miles) Madras Railway. Indian Railway building on a serious scale dates from Lord Dalhousie's great minute of 1853 wherein after dwelling upon the great social, political and commercial advantages of connecting the chief cities by rail he suggested a great scheme of trunk lines linking the Presidencies with each other and the inland regions with the principal ports. This reasoning commended itself to the Directors of the East India Company, and it was powerfully reinforced when during the Mutiny the barriers imposed on free communication were severely felt. As there was no private capital in India available for railway construction, English Companies, the interest on whose capital was guaranteed by the State, were formed for the purpose. By the end of 1859 contracts had been entered into with eight companies for the construction of 6,000 miles of line, involving a guaranteed capital of £22 millions. These companies were (1) The East Indian, (2) the Great Indian Peninsula, (3) the Madras, (4) the Bombay Baroda and Central India, (5) the Eastern Bengal, (6) the Indian Branch now the Oudh and Rohilkund State Railway, (7) the Sind Punjab and Delhi now merged in the North Western State Railway, (8) the Great Southern of India now the South Indian Railway. The scheme laid the foundations of the Indian Railway system as it exists to-day.

Early Disappointments.

The main principle in the formation of these companies was a Government guarantee on their capital for this was the only condition on which investors would come forward. This guarantee was five per cent, coupled with the free grant of all the land required. In return the companies were required to share the surplus profits with the Government, after the guaranteed interest had been met. The interest charges were calculated at 2½ to the rupee. The Railways were to be sold to Government on fixed terms at the close of twenty-five years and the Government were to exercise close control over expenditure and working. The early results were disappointing. Whilst the Railways greatly increased the efficiency of the administration, the mobility of the troops, the trade of the country and the movement of the population, they failed to make profits sufficient to meet the guaranteed interest. Some critics attributed this to the unnecessarily high standard of construction adopted and to the engineers' ignorance of local conditions. The result was that by 1880 the deficit in the Railway budget was Rs. 1,664 lakhs. Seeking for some more economical method of construction, the Government

secured sanction to the building of lines by direct State Agency, and funds were allotted for the purpose, the metre gauge being adopted for cheapness. Funds soon lapsed and the money available had to be diverted to converting the Sind and Punjab lines from metre to broad gauge for strategic reasons. Government had therefore again to resort to the system of guarantee, and the Indian Midland (1882-85) since absorbed by the Great Indian Peninsula, the Bengal Nagpur (1883-87) the Southern Maratha (1882) and the Assam Bengal (1891) were constructed under guarantee but on easier terms than the first companies. Their total length was over 4,000 miles.

Famine and Frontiers.

In 1879 embarrassed by famine and by the fall of the exchange value of the rupee, Government again endeavoured to enlist unaided private enterprise. Four companies were promoted—the Nilgiri the Delhi Umballa, Kalka, the Bengal Central and the Bengal North-Western. The first became bankrupt, the second and third received guarantees, and the Turbat Railway had to be leased to the fourth. A step of even greater importance was taken when Native States were invited to undertake construction in their own territories, and the Nizam's Government guaranteed the interest on 330 miles of line in the State of Hyderabad. This was the first of the large system of Native State Railways. In the first period up to 1870 4,266 miles were opened of which all save 45 were on the broad gauge. During the next ten years there were opened 4,239 making the total 8,494 (on the broad gauge 6,662 the metre 1,865 and narrow 97). Then ensued a period of financial ease. It was broken by the fall in exchange and the costly lines built on the frontier. The Fenjeh incident which brought Great Britain and Russia to the verge of war necessitated the connection of our outposts at Quetta and Chaman with the main trunk lines. The sections through the desolate Haral and Bolan Passes were enormously costly. It is said that they might have been ballasted with rupees. The long tunnel under the Khojak Pass added largely to this necessary but unprofitable outlay.

Rebate Terms Established.

This induced the fourth period—the system of rebates. Instead of a gold subsidy companies were offered a rebate on the gross earnings of the traffic interchanged with the main line, so that the dividend might rise to four per cent, but the rebate was limited to 20 per cent. of the gross earnings. Under these conditions there were promoted the Ahmedabad Panchet, the South Behar and the Southern Punjab, although only in the case of the first were the terms strictly adhered to. The Barak Light Railway on the two feet six inches gauge, entered the field without any guarantee, and with rolling stock designed to illustrate the carrying power of this gauge. The rebate terms being found unattractive in view of the competition of a per cent. trustee stock, they were revised in 1896 to provide for an

absolute guarantee of 3 per cent with a share of surplus profits, or rebate up to the full extent of the main line's net earnings in supplement of their own net earnings the total being limited to 8½ per cent on the capital outlay. Under these terms a considerable number of feeder line companies was promoted though in none were the conditions arbitrarily exacted. As these terms did not at first attain their purpose they were further revised and in lieu was substituted an increase in the rate of guarantee from 3 to 3½ per cent and of rebate from 3½ to 5 per cent with equal division of surplus profits over 5 per cent in both cases. At last the requirements of the market were met and there has since been a mild boom in feeder railway construction and the stock of all the sound companies promoted stands at a substantial premium.

Railway Profits Commence.

Meantime a much more important change was in progress. The gradual economic development of the country vastly increased the traffic both passenger and goods. The falling in of the original contracts allowed Government to renew them on more favourable terms. The development of irrigation in the Punjab and Sind transformed the North-Western State Railway. Owing to the burden of maintaining the unprofitable Frontier lines this was the Cinderella Railway in India—the scapegoat of the critics who protested against the unwisdom of constructing railways "from borrowed capital. But with the completion of the Chenab and Jhelum Canals the North-Western became one of the great grain lines of the world, choked with traffic at certain seasons of the year and making a large profit for the State. In 1900 the railways for the first time showed a small gain to the State. In succeeding years the net receipts grew rapidly. In the four years ended 1907-08 they averaged close upon 12 millions a year. In the following year there was a relapse. Bad harvests in India accompanied by the monetary panic caused by the American financial crisis led to a great falling off in receipts just when working expenses were rising owing to the general increase in prices. Instead of a profit, there was a deficit of £1,240,000 in the railway accounts for 1908-09. But in the following year there was a reversion to a profit and the net Railway gain has steadily increased. For the year ended March 1913 this gain amounted to £5,49 millions (Rs. 823 lakhs). Although in a country like India, where the finances are mainly dependent upon the character of the monsoon the railway revenue must fluctuate, there is no reason to anticipate a further deficit but every ground for hoping that the railway profits will fill the vacuum in the Indian revenues caused by the cessation of the opium trade with China.

Contracts Revised.

A very important factor in this changed position is the revision of the original contracts under which the guaranteed lines were constructed. The five per cent. dividend guaranteed at £2d. per rupee, and the half yearly settlements made these companies a drain on the State at a time when their stock was at a high premium. The first contract

to fall in was the East Indian the great line connecting Calcutta with Delhi and the Northern provinces. When the contract lapsed, the Government exercised their right of purchasing the line, paying the purchase-money in the form of terminable annuities, derived from revenue carrying with them a sinking fund for the redemption of capital. The railway thus became a State line but it was released to the Company which actually works it. Under these new conditions the East Indian Company brought to the State in the ten years ended 1909 after meeting all charges including the payments on account of the terminable annuity by means of which the purchase of the line was made and interest on all capital outlay subsequent to the date of purchase a clear profit of nearly ten millions. At the end of seventy four years from 1880 when the annuity expired, the Government will come into receipt of a clear yearly income of upwards of £2,700,000 equivalent to the creation of a capital of sixty to seventy millions sterling. No other railway shows results quite equal to the East Indian because, in addition to serving a rich country by an easy line it possesses its own collieries and enjoys cheap coal. But with allowance for these factors all the other guaranteed companies which have been acquired under similar conditions as their contracts expired have proportionately swelled the revenue and assets of the State. It is difficult to estimate the amount which must be added to the capital debt of the Indian railways in order to counterbalance the loss during the period when the revenue did not meet the interest charges. According to one estimate it should be £50 millions. But even if that figure be taken Government have a magnificent asset in their railway property.

Improving Open Lines.

These changes induced a corresponding change in Indian Railway policy. Up to 1900 the great work had been the provision of trunk lines. But with the completion of the Nagda Muttra line providing an alternative broad gauge route from Bombay to Delhi through Eastern Rajputana, the trunk system was virtually complete. A direct broad gauge route from Bombay to Sind is needed but chiefly for strategic purposes. The poor commercial prospects of the line and the opposition of the Rao of Cutch to any through line in his territories keep this scheme in the background. There does not exist any through rail connection between India and Burma although several routes have been surveyed, the mountainous character of the region to be traversed, and the easy means of communication with Burma by sea, rob this scheme of any living importance. Further survey work was undertaken in November 1914 the three routes to be surveyed being the coast route, the Manipur route, and the Hukong valley route. The metre gauge systems of Northern and Southern India must also be connected and Karachi given direct broad gauge connection with Delhi, a project that is now under investigation. But these works are subsidiary to the necessity for bringing the open lines up to their traffic requirements and providing them with feeders. The sudden in-

crease in the trade of India found the main lines totally unprepared. Cordly works were necessary to double lines, improve the equipment, provide new and better yards and terminal facilities and to increase the rolling stock. Consequently the demands on the open lines have altogether overshadowed the provision of new lines. Even then the railway budget was found totally inadequate for the purpose, and a small Committee sat in London, under the chairmanship of Lord Ineschepe, to consider ways and means. This Committee found that the amount which could be remuneratively spent on railway construction in India was limited only by the capacity of the money market. They fixed the annual allotment at £12,000,000 a year. Even this reduced sum cannot always be provided.

Government Control.

As the original contracts carried a definite Government guarantee of interest it was necessary for Government to exercise strong supervision and control over the expenditure during construction, and over management and expenditure after the lines were open for traffic. For these purposes a staff of Consulting Engineers was formed and a whole system of checks and counterchecks established leading up to the Railway Branch of the Public Works Department of the Government of India. As traffic developed, the Indian Railways outgrew this dry nursing, and when the original contracts expired, and the interests of Government and the Companies synchronised, it became not only veracious but unnecessary. Accordingly in 1901-02 Mr Thomas Robertson was deputed by the Secretary of State to examine the whole question of the organisation and working of the Indian Railways, and he recommended that the existing system should be replaced by a Railway Board consisting of a Chairman and two members with a Secretary. The Board was formally constituted in March 1905. The Board is outside but subordinate to the Government of India in which it is represented by the Department of Commerce and Industry. It prepares the railway programme of expenditure and considers the greater questions of policy and economy affecting all the lines. Its administrative duties include the construction of new lines by State agency, the carrying out of new works on open lines, the improvement of railway management with regard both to economy and public convenience, the arrangements for through traffic, the settlement of disputes between lines, the control and promotion of the staff on State lines, and the general supervision over the working and expenditure of the Company's lines. Two minor changes have taken place since the constitution of the Railway Board. In 1908 to meet the complaint that the Board was subjected to excessive control by the Department of Commerce and Industry, the power of the Chairman was increased and he was given the status of a Secretary to Government with the right of independent access to the Viceroy; he usually sits in the Imperial Legislative Council as the representative of the Railway interest. In 1912 in consequence of complaints of the excessive interference of the

Board with the Companies, an informal session was undertaken by Lord Ineschepe to reconcile differences. The constitution of the Board is now undergoing further inquiry and the development generally favoured is the establishment of a Railway Member of the Viceroy's Executive Council.

Management

The Railways managed by Companies have Boards of Directors in London. They are represented in India by an Agent, who has under him a Traffic Manager, a Chief Engineer, a Locomotive Superintendent, a Storekeeper, a Police Superintendent, (who is appointed by Government) and an Auditor. The State Railways are similarly organised.

Clearing House.

Proposals have several times been made for the establishment of a Clearing House but the distances are too great. The work which would ordinarily be done by the Clearing House is done by the Audit Office of each Railway.

The Railway Conference

In order to facilitate the adjustment of domestic questions the Railway Conference was instituted in 1876. This Conference was consolidated into a permanent body in 1903 under the title of the Indian Railway Conference Association. It is under the direct control of the railways, it elects a President from amongst the members, and it has done much useful work.

The Indian Gauge.

The standard gauge for India is five feet six inches. When construction was started the broad gauge school was strong and it was thought advisable to have a broad gauge in order to resist the influence of cyclones. But in 1870, when the State system was adopted it was decided to find a more economical gauge for the open lines had cost £17,000 a mile. After much deliberation, the metre gauge of 3 feet 3½ inches was adopted, because at that time the idea of adopting the metric system for India was in the air. The original intention was to make the metre gauge lines provisional; they were to be converted into broad gauge as soon as the traffic justified it; consequently they were built very light. But the traffic expanded with surprising rapidity and it was found cheaper to improve the carrying power of the metre gauge lines than to convert them to the broad gauge. So except in the Indus Valley where the strategic situation demanded an unbroken gauge the metre gauge lines were improved and they became a permanent feature in the railway system. Now there is a great metre gauge system north of the Ganges connected with the Rajputana lines and Kathiawar. Another system in Southern India embracing the Southern Maratha and the South India Systems. These are not yet connected but the necessary link from Khandwa by way of the Nizam's Hyderabad-Godavari Railway cannot be long delayed. All the Burma lines are on the metre gauge. Since the opening of the Bardoli line, illustrating the capacity of the two feet six inch gauge, there has been developed a tendency to construct sections on this rather than on the metre gauge.

STATISTICAL POSITION

In the report on the administration of the Indian railways for the year 1914-15 an important departure is made. The whole history of the Indian railway system is reviewed and the process which led to its evolution is expounded. The difference between State-owned and State-managed lines between State-owned and company managed lines, and between private lines and those constructed under Branch Line terms is explained. This history is to be included in all subsequent reports and should be studied by those who are in need of further information in the details of the Indian system.

Capital.—The actual capital outlay (booked cost) on lines in which the State is financially interested (excluding premia for the purchase of Companies Lines) from the commencement of operations on all lines open at the close of the year 1914-15 amounted to Rs. 4,81,89,79 lakhs and on lines then under construction to Rs. 3,08,19 lakhs. In addition Rs. 91,37 lakhs were expended on miscellaneous items. The

total outlay thus amounted to Rs. 4,85,38,35 lakhs.

The actual expenditure during 1914-15 amounted to Rs. 17,15 lakhs, distributed as follows—

	Rs.
Open lines including suspense	6,71,93,000
New Lines	1,34,81,000
Rolling Stock	9,07,99,000
TOTAL	17,14,73,000

Results of Working.

The financial result of the working of the State Railways during the year 1914-15 is a return of Rs. 488 lakhs. Out of this a sum of Rs. 150 lakhs (£1,002 thousand) was expended in the form of annuity payments in redemption of capital.

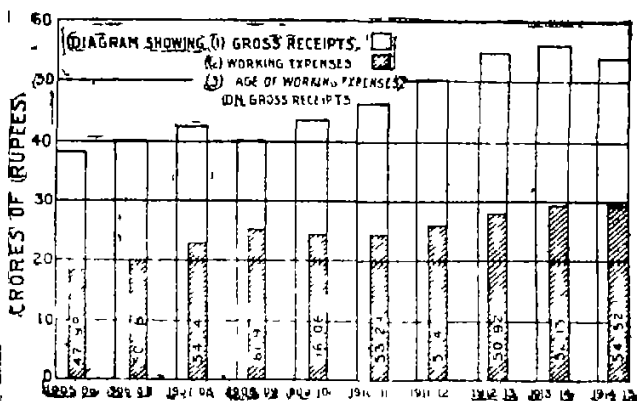
Yield Per Cent.

The gross earnings of all Indian railways during the year 1914-15 amounted in round figures to Rs. 6,042,01 lakhs compared with Rs. 6,358,56 lakhs in 1913-14, being a decrease of Rs. 316,55 lakhs while the working expenses were only Rs. 18,84 lakhs less than in 1913-14. The net earnings amounted to Rs. 2,787,91 lakhs against Rs. 3,066,62 lakhs in 1913-14 or a decrease of Rs. 278,71 lakhs. These net earnings yielded a return on the capital outlay (Rs. 51,922,13 lakhs) on open lines i.e. on mileage earning revenue of 5.33 per cent. as compared with 6.10 per cent in 1913-14. The corresponding actual return per cent for the previous years is compared as follows—

1905	1906	1907	1908	1909	1910	1911	1912	1913-14	1914-15
6.07	5.96	5.88	4.33	4.81	5.48	5.87	6.77	6.19	5.33

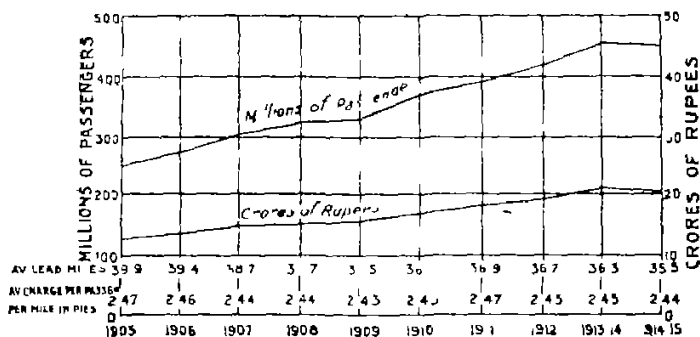
Percentage of Expenses

The following diagram shows graphically the ratio of aggregate revenue expenditure to gross receipts of State lines worked by the State and Companies for the past ten years—



Passenger Earnings.

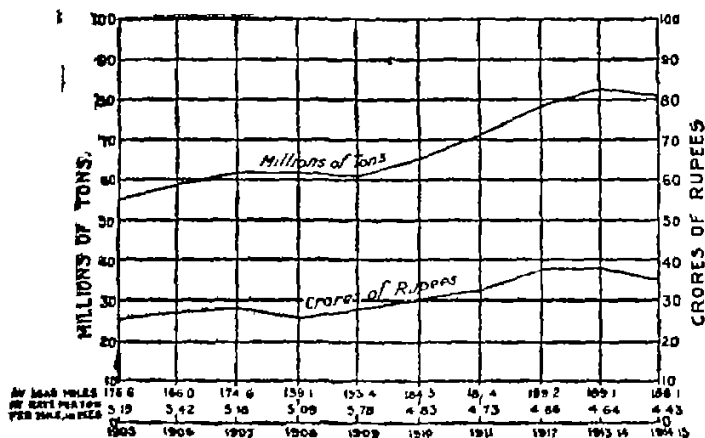
The number of passengers carried and the earnings therefrom are compared in the next diagram —



The decrease in the passenger traffic during the year under review was chiefly due to the effect of the war upon trade and to the absence of tourists and military officers from the country. But for the opening of new railways and the movement of troops consequent on the war this decrease would have been still greater.

Goods Traffic.

A similar comparison of the tonnage of, and earnings from, goods traffic is afforded by the following diagram —



The large falling off in the earnings from goods traffic which was not accompanied by a corresponding decrease in the quantity carried, was principally due to the low rates commodities (coal and grain and pulse) carried and to the war and famine conditions.

Railway Mileage

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Mileage.—During the year 1914-15 645.70 miles of railway were opened to traffic bringing the total mileage open (after allowing for minor corrections due to realignments, etc.) up to 82,285 miles. The additional mileage was made up as follows:—

	5 6" gauge	3 3½ gauge	2-6" gauge	2-0" gauge	Total
	Miles	Miles	Miles	Miles	Miles
State lines worked by the State	104.18	5.90			110.08
State lines worked by Companies	17.27	102.38	29.78		149.53
Branch line Companies railways under rebate terms worked by the Branch line Company			1.15	89.50	90.65
Branch line Companies railways under rebate terms worked by the main line	72.59		123.79		196.38
Companies lines subsidized by the Government of India			6.00		6.00
District Board lines		8.58			8.58
Companies lines subsidized by District Boards			5.88		5.88
Native State lines worked by Native States		37.39	7.95	12.00	57.34
Native State lines worked by the main line		14.72	41.82		56.54
Companies lines guaranteed by Native States			14.72		14.72
TOTAL	194.14	168.97	231.00	51.50	645.70

For the second year in succession the mileage on the 2-6 gauge opened to traffic during the year exceeds that on any other gauge. For the first time in the history of Indian railways the mileage of railways which have been completed by Companies who have obtained concessions on rebate terms exceeds the mileage of railways which have been financed by any other one method and have been opened during the year. Of the total mileage of 237 financed under these terms 210 miles have been constructed with money raised in India.

Ten Years Progress.—The progress made during the past ten years is summarized in the following table:—

Gauge	Mileage opened at the end of									
	1905	1906	1907	1908	1909	1910	1911	1912	1913-14	1914-15
5 6"	15,028	15,548	15,821	15,951	16,308	16,701	17,016	17,189	17,641	17,827
3 3½	11,959	12,149	12,613	12,863	13,523	13,530	13,759	14,165	14,389	14,552
2 6"	880	1,071	1,234	1,394	1,443	1,436	1,632	1,692	2,174	2,402
2 0"	328	329	342	368	416	432	432	438	452	504
Total	28,295	29,097	30,010	30,576	31,490	32,099	32,839	33,484	34,666	35,285

Feeder Railways.—As noted in the Introduction, efforts have been made to secure the participation of private capital in railway construction in India under what are called the branch line terms. In 1910 more liberal terms were offered for this purpose, and private enterprise was offered two alternative forms of assistance:—

(1) A rebate paid by the parent line from its net earnings from traffic brought to it by the feeder railway sufficient to make up 5 per cent on the paid up capital of the Branch Line Company, the liability of the main line being however limited to the total of the net earnings from this traffic.

(2) A firm guarantee from Government of a 7½ per cent return on the paid up capital. In

certain cases when the Branch Line Company so desires a guarantee may be offered in respect of a portion of the capital of the Company and a rebate in respect of the remainder.

During the year ending March 1914, Rs. 224 lakhs of capital were raised under the Branch Line terms for the construction of 341 miles of railway while the lines similarly financed during the year under review aggregated 877 miles and involved a total capital outlay of Rs. 197½ lakhs. Negotiations were in addition concluded, and concessions granted for the construction of several other branch lines.

Notwithstanding the effect which the outbreak of war has exercised on the money market, three out of the eight lines included in the

schedule were financed after its outbreak—a fact which testifies to the popularity of Companses Road under the Branch Line terms. Additional evidence of this popularity is furnished by the fact that apart from the schemes for which concessions have actually been granted, there were under negotiation at the close of the year 1914 15 proposals for the construction of 2,376 miles of railway on the 2 6 gauge 640 miles on the metre-gauge and 570 miles on the broad-gauge or an aggregate of 3,596 miles of railway involving a total capital outlay of nearly twenty crores of rupees or upwards of thirteen millions sterling.

But however attractive the Branch Line terms of 1913 may have proved in respect of the better developed provinces of India, it was recognised that in Assam, owing to the undeveloped state of the country further inducements than those held out by the Branch Line terms were necessary if private capital was to be attracted to railway projects. It was accordingly decided that special terms should be offered for the construction of railways in that province and a Resolution was issued in January 1915 which permitted the grant for a limited number of years after opening of a railway to traffic of a provincial subsidy of 1 per cent by the Assam Administration in addition to the Imperial guarantee of 3½ per cent. The number of proposals for the construction of feeder lines in Assam, which have been put forward since the publication of this Resolution shows that the value of this additional concession is fully appreciated by the public.

District Boards.—The part taken by the District Boards of the Madras Presidency in the development of railway communications in the Presidency is well known. Since the year 1884, District Boards in Madras have been empowered to levy a special cess not exceeding 3 pias per rupee of land revenue,—the proceeds of this cess being reserved for the construction of feeder railways intended to develop the districts which finance and own them.

The Tanjore and Kistna District Board Railways were for some years the only examples of lines so constructed but recently the example of those Boards have been followed in several other parts of the Presidency. During the year under review, the following lines were under construction at the cost of local funds—

- (1) Podanur Pollachi (8 ½) by the District Board of Coimbatore, 20 miles in length and estimated to cost Rs 1½ lakhs.
- (2) Tiruall Rapids Railway (6 67) by the District Board of Guntur, 23 miles in length and estimated at Rs 14 lakhs.
- (3) Kidamangalam Mamangudi and Tiru tirupundi Vedaranyam Railways (8 ¾) by the Tanjore District Board, having a combined mileage of 31½ and being estimated to cost approximately Rs 20 lakhs.

The various reasons, no new District Board Railways were actually sanctioned during the year, but as the close negotiations were in progress in connection with a number of important schemes, which it was hoped would shortly materialise.

To encourage District Board enterprise in other parts of India, permission to legislate for the levy of a railway cess was extended during 1913 to all Local Governments desiring to introduce such legislation but it will probably be some years before any of the Local Boards in these provinces have accumulated sufficient funds to commence the construction of branch railways.

Accidents.—The total number of persons of all classes killed by causes beyond their control was 76 against 117 and the number injured 329 against 270 in the previous year. Out of a total of 451 09 millions against 466 0 millions of passengers travelling, and of 16 022 85 millions of miles against 16 612 58 millions of miles travelled, 16 passengers were killed and 140 injured against 53 killed and 104 injured in the previous year. This gives an average of one fatal casualty in 28 19 millions against one in 3 04 millions of persons travelling and an average of one in 1 001 43 millions against one in 226 14 millions of miles travelled in 1914-15 and 1913-14 respectively. This distribution in the number of fatalities cannot however be attributed to any decrease in the number of accidents. In the previous year an unusually large number of persons were killed, two accidents alone causing the death of 56 persons.

The following are particulars of the more serious train accidents—

A passenger train running through Sambhu station on the North Western Railway on the 20th November 1914 was pulled up by the driver in order to obtain permission to proceed to the next station. This permit should have been in the pouch which was picked up mechanically by the engine when a train does not stop at a station, but was missing on this occasion. After some delay caused by the Assistant Station Master misreading a second permit, the train was backed and drawn up about the centre of the station and while standing on this position was run into from behind by a mail train which was following. Three vehicles were wrecked and 8 persons killed and 25 injured by the collision.

The case was the subject of departmental enquiry as a result of which the accident was attributed to the action of the Assistant Station Master in lowering the signals for the mail train in contravention of the rules and so allowing that train to enter the station before the line on which it was to be received was clear. The Assistant Station Master was subsequently prosecuted, convicted and sentenced to 2 years imprisonment and a fine of Rs 200.

A goods train while ascending the gradient passing through a tunnel near Igatpuri station on the Great section of the Great Indian Peninsula Railway on the 15th October 1914, parted between the 2nd and 3rd vehicles from the leading engine and the rear portion ran back towards Tuni Ghat Reversing station where it collided with a down goods train standing outside the station owing to the points leading to No. 3 catch siding, which is provided for such a contingency, being held over by the pointman for the down mainline instead of being allowed to remain in their normal position for the catch

siding Eight railway servants were killed and twenty-two injured.

Two engines were working the train which was fitted with automatic vacuum brakes. Considerable trouble had been experienced in hauling the train up the gradient owing to the engine in rear slipping and the train had on one occasion come to a stand in a tunnel situated lower down than the one in which it subsequently parted, owing to the vacuum brake connecting hose pipe between two vehicles coming uncoupled. In restarting the train the staff had neglected to restore this connection and consequently when the train parted in the tunnel further up by the breakage of a drawbar the rear portion ran backward down the grade and could not be controlled owing to the vacuum brake having been rendered inoperative after the first stoppage.

The staff at fault were dealt with department ally.

The question as to the best arrangement of the catch siding points so as to obviate a recurrence of the kind is still under investigation.

An up Barabooli Pilot collided with a down Barabooli Pilot between Ondal and Sonachora stations on the East Indian Railway on the 4th April 1914, resulting in the death of three railway servants including the driver who was primarily responsible for the accident and injuries to eight other railway servants. The rolling stock was also considerably damaged. The accident was due to the driver of the down Barabooli Pilot having started with a wrong line clear. The Assistant Station Master of Sonachora was also responsible for the accident inasmuch as he failed to give proper instructions as to the train for which the line clear was intended, or to ensure that his instructions were fully understood and properly carried out as required by the rules.

The accident would have been averted, had the Assistant Station Master sent immediate warning to Ondal Junction cabin when he discovered that the down Barabooli Pilot had left with a wrong line clear. The staff at fault were departmentally punished.

On the 21st May 1914 two third class carriages of an up mixed train caught fire between Rheidal and Miraj stations on the Poona Branch of the Madras and Southern Mahratta Railway. The train was brought to a stand and it was found that an Indian woman and a child, who had huddled themselves up in the lavatory in the front carriage had been burnt to death and that out of the ten passengers who had jumped from the carriages whilst the train was in motion five had received slight and five serious injuries. The two carriages were burnt to the under frames and, as the fire was burning too fiercely to be extinguished the train was divided and the burning vehicles isolated. It is believed that the carriages were set on fire by a lighted cigarette being dropped by one of the passengers into a window slot which was open at the bottom and to the current of air passing upwards between the inner and outer linings of the window and fanning the burning cigarette end into a flame.

To prevent similar accidents in future it has been suggested to Railway Administration

that some form of fire extinguishers be carried in the brake vans of mixed trains and that the bottom of window wells which are left open in certain carriages in order that articles dropped into the window slot might ordinarily fall on to the floor of the carriage be closed.

The Ceylon Boat Mail collided with a goods special near Samudram station on the South Indian Railway on the 26th May 1914. An employee of the Railway who was travelling in the rear brake van of the goods train was slightly injured but the damage to rolling stock especially in the case of the goods train was considerable.

A storm the night before had blown down trees which had damaged the wires connecting the block instruments. This had necessitated the suspension of the ordinary method of working trains on the Absolute Block System and resort to the working of trains under special rules and regulations framed by the Company to meet such a contingency. Neglect by the station staff of certain precautions imposed by these regulations led to the admission into the same block section of the mail and the goods train from opposite directions simultaneously and a further neglect on the part of the driver of the goods train of precautions as to speed resulted in the collision.

In investigating the cause of the accident it was found that the rules and regulations framed by the Company for the working of trains during the failure of telegraphic communication left too much to the discretion of the staff and it was consequently decided to revise the rules. The staff at fault were dealt with department ally.

Early on the morning of the 20th November 1914 a glancing collision occurred at Korukuppetai, a small station on the Madras and Southern Mahratta Railway in the outskirts of Madras.

Two goods trains had to cross at this place. The up train arrived first and entered the loop siding. The down train was then received on the platform a line. It was a long train and was brought to a stand before the rear brake van had been drawn fully clear of the points. The fact of the points being fouled appears to have escaped notice and the up train was permitted to resume its journey towards Madras with the result that the engine collided with the rear of the down train and derailed the last three vehicles on it.

The Assistant Station Master who was in a great measure responsible for the accident was found dead under one of the wagons. The guard of the down train who was equally responsible was prosecuted and sentenced to pay a fine of Rs. 150 or in default to undergo three months rigorous imprisonment.

Railway Staff.—The total number of servants in railway employ at the close of the year was 640,116 of which number 7,640 were Europeans, 10,345 Anglo-Indians, and 532,131 Indians. Of the Europeans and Anglo-Indians, 15,981 were enrolled as Volunteers. At the close of 1914 there were 10,664 children and 10,163 apprentices and workmen attending the Railway Schools.

THE CHIEF RAILWAYS IN INDIA

The Assam Bengal Railway which is constructed on the metre gauge, starts from Chittagong and runs through Surma Valley across the North Cachar Hills into Assam. It is worked under a limited guarantee by a company whose contract is terminable in 1921. The main line has an open mileage of 847.98. The total capital outlay is Rs. 1,624 lakhs, gross earnings 68 lakhs net earnings, 17 lakhs and the percentage of net earnings on the capital outlay 1.07. The loss to the State for 1914-15 was Rs. 84.01, 1928.

Bengal and North Western.

The Bengal and North-Western Railway was constructed on the metre gauge system by a company without any Government assistance other than free land and was opened to traffic in 1895. The system was begun in 1874 as the Tirhut State Railway. In 1890 this line was leased by Government to the Bengal and North Western Railway. Since then extensive additions have been made in both sections. It is connected with the Rajputana metre gauge system at Cawnpore and with the Eastern Bengal State Railway at Khairbar and the Oudh and Rohilkhand Railway at Benares. The open mileage is 2,027.18 under construction or sanction 35.08 total 2,062.26. The total capital outlay amounts to Rs. 991 lakhs gross earnings 108 lakhs, net earnings Rs. 66 lakhs and interest divided between the Government and Company Rs. 68 lakhs percentage of total net income on capital outlay 6.95. Tirhut railway. Total capital outlay Rs. 817 lakhs gross earnings Rs. 9.1 lakhs, net earnings Rs. 58 lakhs, gain to the State Rs. 26 lakhs, and percentage 6.72.

Bengal-Nagpur

The Bengal Nagpur Railway was commenced as a metre gauge from Nagpur to Chhattisgarh in the Central Provinces in 1887. A company was formed under a guarantee which took over the line, converted it to the broad gauge and extended it to Howrah, Cuttack and Kalai. In 1901 a part of the East Coast State Railway from Cuttack to Visagapatnam was transferred to it and in the same year sanction was given for an extension to the coal fields and for a connection with the Branch or the East Indian Railway at Hariharpur. Open mileage 2,727.85 under construction or sanctioned 283.23 total 3,011.08. The total capital outlay is Rs. 4,021 lakhs, gross earnings Rs. 410 lakhs, net earnings 203 lakhs, percentage of net earnings on capital outlay is 5.05. The gain to the State is 47 lakhs.

Bombay Baroda

The Bombay Baroda and Central India Railway is one of the original guaranteed railways. It was commenced from Surat via Baroda to Ahmedabad, but was subsequently extended to Bombay. The original contract was terminable in 1890 but the period was extended to 1905 and then renewed under revised conditions. In 1885 the Rajputana Malwa metre gauge system of State railways was leased to the Company and has since been incorporated in it. On the opening of the Nagda-Mritara, giving broad gauge connec-

tion through Eastern Rajputana with Delhi, the working was entrusted to this Company. On the acquisition of the Company in April 1907 the purchase price was fixed at £11,685,681. The statistical working of the broad gauge shows a mileage of 998.80 the capital outlay 2,441 lakhs, gross earnings 341 lakhs, net earnings 166 lakhs, percentage of net earnings on the capital outlay 6.76 gain to the State 45 lakhs.

The metre gauge system of the Company shows a mileage of 1,815.64, total capital outlay 1,710 lakhs, gross earnings 286 lakhs, net earnings 182 lakhs percentage of net earnings on the capital outlay 7.7 gain to the State 75 lakhs.

Burma Railways.

The Burma Railway is an isolated line and although various routes have been surveyed there is little prospect of its being connected with the Railway system of India on account of the difficult and sparsely populated country which intervenes. It was commenced as a State Railway and transferred in 1898 to a Company under a guarantee. The mileage is 1,841.85 total capital outlay Rs. 1,772 lakhs, gross earnings 216 lakhs net earnings 94 lakhs percentage of net earnings on the capital outlay 5.34 gain to the State 21 lakhs. Burma extensions have a total mileage of 253.18.

Eastern Bengal.

The Eastern Bengal State Railway was promoted under the original form of guarantee and was constructed on the broad gauge. The first portion of the line running to Calcutta over the Ganges was opened in 1862. In 1874 sanction was granted for the construction on the metre gauge of the Northern Bengal State Railway which ran from the north bank of the Ganges to the foot of the Himalayas on the way to Darjeeling. These two portions of the line were amalgamated in 1884 into one State Railway. The open mileage is 1,639.06, capital total outlay 3,501 lakhs, gross earnings 382 lakhs, net earnings 114 lakhs, percentage of net earnings on capital outlay 3.28 loss to the State 18 lakhs.

The East Indian.

The East Indian Railway is one of the three railways sanctioned for construction as experimental lines under the old form of guarantee. The first section from Howrah to Pandua was opened in 1854 and at the time of the Mutiny ran as far as Raniganj. It gives the only direct access to the port of Calcutta from Northern India and is consequently fed by all the large railway systems connected with it. In 1880 the Government purchased the line, paying the shareholders by annuities, but leased it again to the company to work under a contract which is terminable in 1919. The open mileage is 2,716.48 under construction or sanction 59.67, total 2,804.15. Total capital outlay (on 2,445 miles) Rs. 7,052 lakhs, gross earnings 1,085 lakhs, net earnings Rs. 625 lakhs, percentage of net earnings on capital outlay 8.87 gain to the State 236 lakhs.

Great Indian Peninsula

The Great Indian Peninsula Railway is the earliest line undertaken in India. It was promoted by a Company under a guarantee of 5 per cent, and the first section from Bombay to Thana was open for traffic in 1853. Sanction was given for the extension of this line via Poona to Rakhr where it connects with the Madras Railway and to Jubbulpore where it meets the East Indian Railway. The feature of the line is the passage of the Western Ghats, these sections being 15½ miles on the Bhore Ghat and 9½ miles on the Thul Ghat which rise 1181 and 972 feet. In 1900 the contract with the Government terminated and under an arrangement with the Indian Midland Railway that line was amalgamated and leased to a Company to work. The open mileage is 3088.66, under construction or sanction 265.90 total 3354.56. The total capital outlay on the Company's own system of 2,490.64 miles is 6.257 lakhs, gross earnings, 771 lakhs, net earnings 286 lakhs, percentage of net earnings on capital outlay 4.57 gain to the State 81 lakhs.

Madras Railway

The Madras Railway was the third of the original railways constructed as experimental lines under the old form of guarantee. It was projected to run in a north westerly direction in connection with the Great Indian Peninsula Railway and in a south westerly direction to Calcutta. On the expiry of the contract in 1907 the line was amalgamated with the Southern Maharashtra Railway Company a system on the metre gauge built to meet the famine conditions in the Southern Maharashtra country and released to a large Company called the Madras and Southern Maharashtra Railway Company. The mileage is 1311.63, under construction or sanction 369.6 total 1681.23. The capital outlay on the Company's own system of 2,651.33 miles is 32.88 lakhs, gross earnings 378 lakhs, net earnings 163 lakhs, percentage of net earnings on capital outlay 6.04 loss to the State 44 lakhs. (The annuity payment is Rs. 78 lakhs.)

The North Western.

The North-Western State Railway began its existence at the Sind Punjab-Delhi Railway which was promoted by a Company under the original form of guarantee and extended to Delhi, Multan and Lahore and from Karachi to Kotri. The interval between Kotri and Multan was unbridged and the railway traffic was exchanged by a ferry service. In 1871-72 sanction was given for the connection of this by the Indus Valley State Railway and at the same time the Punjab Northern State Railway from Lahore towards Peshawar was begun. In 1886 the Sind Punjab-Delhi Railway was acquired by the State and amalgamated with these two railways under the name of the North-Western State Railway. It is the longest railway in India under one administration. The opened mileage is 5329.83, under construction or sanction 168.66, total 5498.49. The statistical results of the working of the State owned 4,010.48 miles are total outlay Rs. 85.87 lakhs, gross earnings 817 lakhs, net earnings 306 lakhs, percentage of earnings on capital outlay 3.55, loss to the State 81 lakhs.

Oudh and Rohilkhand

Oudh and Rohilkhand Railway was another of the lines constructed under the original form of guarantee. It began from the north bank of the Ganges running through Rohilkhand as far as Saharanpur where it joins the North-Western State Railway. It was not until 1887 that the bridge over the Ganges was completed and connected with the East Indian Railway. To effect a connection between the metre gauge systems to the North and those to the South of the Ganges, a third rail was laid between Bhurial and Cawnpore. The Company's contract expired in 1889 when the Railway was purchased by the State and has since been worked as a State Railway. The opened mileage is 1714.04, under construction and sanction 64.55 total 1778.59. The total capital outlay on the State system of 1,682 miles is 2,215 lakhs, gross earnings 208 lakhs, net earnings 91 lakhs, percentage of net earnings on capital outlay 4.12. Loss to the State was 2 lakhs.

The South Indian.

The South Indian Railway was one of the original guaranteed railways. It was begun by the Great Southern India Railway Company as a broad gauge line, but was converted after the seventies to the metre gauge. This line has been extended and now serves the whole of the Southern India, south of the south west line of the Madras Railway. Between Tuticorin and Ceylon a ferry service was formerly maintained, but a new and more direct route to Ceylon via Rameshwaram was opened at the beginning of 1914. As the original contract ended in 1907 a new contract was entered up on with the Company on the 1st of January 1908. The open mileage is 1,762.82, under construction or sanction 67.31 total 1,830.13. The statistical results of the working of the Company's system of 1,456.17 miles gives a capital outlay 1,875 lakhs, gross earnings 272 lakhs, net earnings 115 lakhs, percentage of net earnings to capital outlay of 6.14 gain to the State 56 lakhs.

The Native States.

The principal Native State Railways are The Nizam's, constructed by a company under a guarantee from the Hyderabad State the Kathiawar system of railways, constructed by subscriptions, among the seven Chieftains in Kathiawar, the Jodhpur Bikaner Railway constructed by the Jodhpur and Bikaner Chiefs, the system of railways in the Punjab constructed by the Patiala, Jind, Maler Kotla, and Kasimbar Chiefs, and the railways in Mysore constructed by the Mysore State.

The Sara Bridge.

The Lower Ganges Bridge at Sara was formally opened to all kinds of traffic on 4th March 1915 and was named the Harding Bridge.

The necessity for bridging the Ganges at some point in Lower Bengal arose from the increasing volume of traffic of all descriptions and kinds which has now to be carried in both directions over the Eastern Bengal Railway between Calcutta and Northern Bengal and Assam. Hitherto the traffic has been taken across the Ganges in barges supplemented, as the traffic increased by metre and broad gauge wagon ferries. The

constant changing of the river channels the instability of the river banks the sudden rushes of traffic when the main staples (jute, tea, rice, etc.) have had to be moved, and the break of gauge of the Railways on the Northern (metre) and Southern (broad gauge) banks of the Ganges have for years combined to produce conditions with which neither the Railway administration nor its clients were content. The Bridge is an engineering work of greater magnitude than any previously undertaken in the East and takes its place as one of the most interesting and important engineering works of the world. The bridge consists of 16 spans of 345 ft. girders from centre to centre of bearings with three land spans of 75 ft. each at each end, giving a total length of 5,900 feet, that is to say approximately 11 miles. It carries a double line of rails and a footway for pedestrians. The foundations consist of wells sunk from 160 to 200 feet below low water level. This great depth was considered necessary owing to the alluvial nature of the soil in the river bed and its liability to be scour'd to a depth of 100 feet. The wells carry masonry piers the tops of which are at high flood level, while on the piers are iron trusses 34½ feet in height, which in turn carry the girders. Each well weighs about 16,000 tons and the wells and piers and trestles of the entire bridge weigh over 300,000 tons.

A headway of 40 feet above highest-flood level has been provided to permit of the free passage of river craft of all kinds at all seasons. Some 20 million cubic feet of stone have been used in the bridge and training works combined. At highest flood, not less than 2½ million cubic feet of water flow under the bridge per second.

Each span of girders weighs 1,250 tons and there are 80,000 tons of steelwork in the whole bridge. Before the design of the girders was taken in hand a careful inquiry into the maximum weight which engines and vehicles used on the standard gauge might be expected to attain was carried out. The result of this inquiry was to show the desirability of enhancing the scale of loading in the case of this bridge.

The existing scale laid down in 1908 as a standard for all India was accordingly increased. For Chord Members the increase amounted to 6·4 per cent for Web Members to 12 per cent, and for Floor Members to 30 per cent. This is equivalent in respect of the main girders to a train of vehicles weighing 1·6 tons per foot hauled by two 8-wheel coupled locomotives with 20 ton axle loads on each of the coupled wheels and in respect of the floor system to an 8-wheel coupled locomotive with 25-ton axle loads on each of the coupled wheels. Some 1,700,000 rivets were riveted up at site. For this pneumatic and hydraulic power were employed. In the construction of the masonry of the bridge cement concrete was freely used, concrete blocks weighing from 6 to 7 tons each being moulded in the blockyards and after being allowed to set, carried to the works and used in place of bricks. Electricity was employed for the transmission of power over the whole of the work. The cost of the whole work is estimated to amount to some 360 lakhs of rupees made up of 100 lakhs for the River Training works, 72 lakhs for the approaches and 188 lakhs for the Bridge structure proper.

The construction of the Hardinge Bridge will very largely remove the inconveniences to which the traffic has hitherto been subjected, although transshipment of the greater part of the traffic from metre to broad gauge will still be necessary at one or more points north of the river. This transshipment will now, however, be carried out in permanent tranship yards, the site of which will not depend on the vagaries of the river, while the very great expense of maintaining a ferry service under unusually unfavourable conditions will be avoided, thus bringing about large savings in working expenses, moreover the greater rapidity and certainty of transport is expected to result in a very great increase in the volume of traffic on existing lines, while extensions such as the Sara-Saraiganj Railway now under construction will bring much new traffic which the Eastern Bengal Railway without the bridge would have been unable to deal with.

INDIA AND CEYLON

The possibility of connecting India and Ceylon by a railway across the bank of sand extending the whole way from Rameswaram to Mannar has been reported on from time to time since 1895 various schemes having been suggested.

The South Indian Railway having been extended to Dhanushkodi the southernmost point of Rameswaram Island, and the Ceylon Government Railway to Talaimannar on Mannar Island two points distant from each other about 21 miles across a narrow and shallow strait, the project has again been investigated with the idea of connecting these two terminal stations by a railway constructed on a solid embankment raised on the sand bank known as Adams Bridge to supersede the ferry steamer service which has been established between these two points.

In 1913, a detailed survey was made by the South Indian Railway Company and a project has now been prepared. This project contemplates the construction of a causeway from

Dhanushkodi Point on the Indian side to Talaimannar Point on the Ceylon side a length of 20·05 miles of which 7·19 will be upon the dry land of the various lands and 12·86 will be in water. The sections on dry land will consist of low banks of sand pitched with coral and present no difficulty. The section through the sea will be carried on a causeway which it is proposed to construct in the following way. A double row of reinforced concrete piles pitched at 10 feet centres and having their inner faces 14 feet apart, will first be driven into the sand. These piles will then be braced together longitudinally with light concrete arches and chains and transversely with concrete tie struts and chains. Behind the piles slabs of reinforced concrete will be slipped into position the bottom slabs being sunk well into the sand of the sea bottom. Lastly the space enclosed by the slabs will be filled in with sand.

The top of the concrete work will be carried to six feet above high water level, and the rails

will be laid at that level. The sinking of the piles and slabs will be done by means of water jets. This causeway it is expected, will cause the suspended sand brought up by the currents, to settle on either side bringing about rapid accretion and eventually making one big island of Ramswaram island and Mannar island.

If this method of construction is adopted, it is estimated that the total cost of the causeway and works at the two terminal points viz — Dhanushkodi and Talaimannar will be approximately 111 lakhs.

Indo-Burma Connection.

The raids of the Emden in the Bay of Bengal in 1914, and the temporary interruption of communications between India and Burma stimulated the demand for a direct railway connection between India and Burma. Government accepted the position and appointed Mr. Richards M. Inst. C.E. to be the engineer-in-charge of the surveys to determine the best route for a railway from India to Burma. The coast route appears to be the favoured one. This would start from Chittagong, which is the terminus and head quarters of the Assam Bengal Railway and a seaport for the produce of Assam. The route runs southwards through the Chittagong district, a land of fertile rice fields intersected by big rivers and tidal creeks and it crosses the Indo-Burma frontier 94 miles from the town of Chittagong. For about 180 miles further it chiefly runs through the fertile rice lands of Arrakan and crosses all the big tidal rivers of the Akyab delta. These include the Kaladan river which drains 4,700 miles of country and even at a distance of about 30 miles from its mouth is more than half a mile wide. About 260 miles from Chittagong the railway would run into the region of mangrove swamps which fringe the seacoast north and south of the harbour of Kaulkphu stretching out into the mangrove swamps like ribs from the backbone. Innumerable spurs of the

Arrakan Yoma have to be crossed. Yoma is a mountain ridge which extends from Cape Negrais northwards until it loses itself in a mass of tangled hills east of Akyab and Chittagong. At its southern end the height of the ridge is insignificant but it has peaks as high as 4,000 feet before it reaches the altitude of Sandway and further north it rises much higher. It is a formidable obstacle to railway communication between India and Burma. This route is estimated to cost about £7,000,000 and would have to be supplemented by branch lines to Akyab where there is at present a considerable rice traffic and the cost of this would have to be added to the £7,000,000 already referred to.

The other routes examined have been the Hukong Valley route and the Manipur route which were surveyed by the late Mr. R. A. Way many years ago. The Manipur route is estimated to cost about £5,000,000 as it has to cross three main ranges of hills with summit levels of 2,650, 3,000 and 8,900 feet long. Altogether there would be about four miles of tunnelling through the three main ridges and through other hills and more than 100 miles of extensive undulating railway with grades as steep as 1 in 50 and 11,000 feet of aggregate rise and fall. The Hukong valley route seems to be the cheapest one as it is estimated to cost £3,500,000. This line is only about 284 miles long and it presents fewer engineering difficulties than either the Coast or the Manipur route. One hundred and fifty miles of this route lie in open country capable of cultivation though at present it is only very thinly populated. Only one range of hills has to be crossed and this can be negotiated with a summit tunnel of 5,000 feet long at a height of 2,500 feet. There are less than fifty miles of very heavy work and only about 4,500 ft aggregate of rise and fall.

Later in the year when severe economies had to be practised, and it was clear that funds would not be available for the purposes of the railway the survey parties were withdrawn.

Railway Statistics.

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Main results of working of all Indian Railways treated as one system

	Particulars.	1907	1908	1909	1910	1911	1912	1913-14	1914-15
1	Mileage open at close of the calendar year	29 957	30 578	31 490	32 099	32 539	33 484	34 653	35 280
2	Total Capital outlay, including interest and suspense on open lines (in thousands of rupees)	3,91 86 93	4 11 91 71	4 29 83 20	4 30 04 73	4 50 08 80	4 65 15 00	4 85 08 64	5 19 32 18
3	Gross earnings (in thousands of rupees)	47 30 51	44 82 59	47 06 36	51 14 23	55 27 92	61 65 07	63 58 56	60 12 01
4	Gross earnings per mile open	15 794	14 663	14 948	15 936	16 833	18 412	18 350	17 123
5	Gross earnings per mile open per week	304	282	287	306	324	354	353	329
6	Gross earnings per train mile	3 79	3 51	3 67	3 85	3 87	4 04	4 07	3 84
7	Total working expenses (in thousands of rupees)	24 32 21	27 04 2	29 38 48	27 15 72	28 83 92	30 15 92	32 93 04	32 74 10
8	Working expenses per mile open	8 121	8 833	8 380	8 462	8 782	9 007	9 504	92 79
9	Working expenses per train mile	1 95	2 11	06	2 04	2 02	1 98	2 11	2 08
10	Percentage of working expenses to gross earnings	51 42	60 24	06	53 10	52 17	48 92	51 79	54 19
11	Net earnings (in thousands of rupees)	22 98 20	17 82 44	20 67 90	23 98 50	26 44 00	31 49 15	30 65 52	27 67 91
12	Net earnings per mile open	7 673	6 830	6 568	7 474	8 031	9 405	8 846	7 844
13	Net earnings per train mile	1 84	1 40	1 61	1 81	1 85	2 06	1 96	1 76
14	Percentage of net earnings on total capital outlay (Mean 5) - Per cent	5 66	4 33	4 81	5 46	5 87	6 77	6 19	5 33
15	Cumulative train miles (in thousands of train-miles)	43 258	47 835	48 191	48 098	50 833	53 093	55 972	58 609

Main results of working of all Indian Railways treated as one system.

	Particulars.	1907	1908	1909	1910	1911	1912	1913 14	1914 15
16	Goods train miles (in thousands) Train Miles	46 849	44 875	44 065	47 090	53 219	59 992	57 933	54,859
17	Mixed train miles (in thousands)	30 142	29,944	30 850	31 986	33 746	34,940	34,581	35,514
18	Total, including miscellaneous train miles (in thousands)	124 786	127,881	128,290	132,825	142,944	142,761	180,276	167 142
19	Unit-mileage of passengers (in thousands)	11,840 849	12,102 929	12,364 579	13 432 477	14 372,943	15 318,372	16,814,068	16 092,849
20	Freight ton mileage of goods (in thousands)	10 840,886	9 925,830	9 340,441	12 092,916	13 858 264	15 488 595	15,823,235	15,225 937
21	Average miles a ton of goods was carried	174 53	159 07	153 37	184 38	187 46	199 15	183 11	183 04
22	Average rate charged for carrying a ton of goods one mile	5 18	5 08	5 78	4 85	4 73	4 66	4 84	4 43
	Average miles a passenger was carried.								
23	1st class	100 89	100 76	108 35	99 72	111 80	106 54	113 48	123 83
24	2nd class	70 81	71 26	69 24	76 07	76 32	74 77	74 58	80 52
25	Intermediate class	29 39	26 82	24 89	32 41	37 27	51 90	51 13	49 72
26	3rd class	39 85	38 45	36 74	37 12	37 73	37 81	37 40	35 39
27	Season and Vendors' tickets	9 31	8 94	8 80	6 73	6 75	6 84	6 71	6 80
28	Total	88 71	87 68	97 54	36 15	36 87	98 72	96 80	85 33
	Average rate charged per passenger per mile.								
29	1st class	13 06	12 95	12 89	14 55	14 23	14 25	14 43	12 79
30	2nd class	5 76	5 76	5 94	6 67	6 73	6 64	6 60	6 32
31	Intermediate class	2 03	2 04	3 06	3 15	3 10	3 12	3 14	3 16
32	3rd class	2 28	2 28	2 28	2 28	2 30	2 30	2 29	2 29
33	Season and Vendors' tickets	1 40	1 39	1 42	1 42	1 43	1 46	1 43	1 43
34	Total	2 44	2 44	2 43	2 45	2 47	2 45	2 45	2 44

Railway Mileage

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Mileage of Railway Lines in India open for Traffic at end of year

Railways*	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
STATE LINES										
Agra Delhi Chopal*		120	120	126	126	126	126	126	126	126
Amar-Bengal*	775	775	775	775	775	775	775	775	775	775
Bam-Kotal*										
Bangal Central	125	125	125	125	125	125	125	125	125	125
Bangal-Nagpur*	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052
Barrade Extension*	21	21	21	21	21	21	21	21	21	21
Bombay-Barrade*	13	13	13	13	13	13	13	13	13	13
Bombay-Barrade & Central India*	604	604	604	604	604	604	604	604	604	604
Bombay-Barrade	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337	1,337
Bombay-Barrade	80	80	80	80	80	80	80	80	80	80
Bombay-Barrade	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035
Bombay-Barrade	977	977	977	977	977	977	977	977	977	977
Bombay-Barrade	1,562	1,562	1,562	1,562	1,562	1,562	1,562	1,562	1,562	1,562
Bombay-Barrade	806	806	806	806	806	806	806	806	806	806
Bombay-Barrade	124	124	124	124	124	124	124	124	124	124
Bombay-Barrade	80	80	80	80	80	80	80	80	80	80
Bombay-Barrade	77	77	77	77	77	77	77	77	77	77
Bombay-Barrade	69	69	69	69	69	69	69	69	69	69
Bombay-Barrade	92	92	92	92	92	92	92	92	92	92
Bombay-Barrade	237	237	237	237	237	237	237	237	237	237
Bombay-Barrade	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559	2,559
Bombay-Barrade	296	296	296	296	296	296	296	296	296	296
Bombay-Barrade	17	17	17	17	17	17	17	17	17	17
Bombay-Barrade	17	17	17	17	17	17	17	17	17	17
Bombay-Barrade	56	56	56	56	56	56	56	56	56	56
Bombay-Barrade	1,649	1,649	1,649	1,649	1,649	1,649	1,649	1,649	1,649	1,649
Bombay-Barrade	1,123	1,123	1,123	1,123	1,123	1,123	1,123	1,123	1,123	1,123
Bombay-Barrade	50	50	50	50	50	50	50	50	50	50
Bombay-Barrade	517	517	517	517	517	517	517	517	517	517
Bombay-Barrade	81,131	81,131	81,131	81,131	81,131	81,131	81,131	81,131	81,131	81,131
Total										

* Worked by a Company
† Associated with Madras Bengal Railway
‡ Associated with Bombay, Baroda and Central India Railway
§ These are the latest figures published in 1915

† Mileage of Railway Lines in India open for Traffic at end of year—contd.

Railways.	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912.
ASSISTED COMPANIES										
Ahmedabad Dholka	33	38	38	33	33	33	33	33	33	33
Ahmedabad Patanli	65	66	66	66	65	65	65	65	65	65
Amritsar Patil				23	23	23	28	54	64	61
Arab-Basaram Light	18	18	18	18	18	18	28	28	35	33
Badrinarayan Bebar Light				26	26	26	26	61	51	51
Badrinarayan Light	22	32	28	79	79	79	79	116	116	116
Badrinarayan Light	231	871	901	932	1 015	1 017	1 082	1 117	1 176	1 177
Bombay and North Western	133	153	153	163	163	163	163	163	163	163
Bombay and Central							52	52	52	52
Bombay and Western	51	51	51	51	51	51	51	51	51	51
Champaner-Suratpur Light										
Darydwang-Himalayan	162	162	162	162	162	162	162	162	162	162
Delhi Umballa Kalka	6	6	6	6	6	6	6	6	6	6
Deogarh	78	78	78	78	78	78	78	78	78	78
Dibru-Sadiya	32	32	32	32	32	32	32	32	32	32
Hardwar Dehra	21	37	37	37	37	44	44	44	44	44
Howrah-Amra	20	20	20	20	20	20	20	20	20	20
Howrah-Sheakula										
Jalandhar Doab										
Mascheran										
Mirpur Khas-Thudo	53	51	51	58	64	64	64	64	64	64
Mirpur Khas-Khadro	40	40	40	40	40	40	40	40	40	40
Mysore-Bangalore-Jamshilpur-Jagannathpur										
Powayan Light										
Raddhunda and Kumaon	54	54	54	118	171	203	202	202	226	256
Shikhar (Delhi) Salazpur Light	79	79	79	79	79	79	79	79	79	79
South Bebar	425	425	425	500	575	575	575	575	575	575
Southern Punjab										
Swat Valley	90	90	90	108	103	103	108	103	103	103
Tanjore District Board*	165	155	155	155	156	156	155	155	155	155
Tud Valley	22	22	22	22	22	22	22	22	22	22
Tarapur	20	20	20	20	20	20	20	20	20	20
Thakur-Balpara	8	8	8	8	8	8	8	8	8	8
Thakur-Darydwang Light										
Total	2,444	2,490	2,629	2,897	3,117	3,207	3,353	3,669	3,803	4,018

* Worked by a Company

† Amalgamated with East Indian Railway

† These are the latest figures published to

† Mileage of Railway Lines in India open for Traffic at end of year—contd

Railways	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
UNASSISTED COMPANIES										
Dakri Rohas Light									24	24
Jasodhri Light	11	9	9	9	9	9	9	6	8	8
Ledo and Tikat Margherita Colliery									6	6
Malsya Light	31	33	33	31	33	33	33	33	33	33
Tarakshwar Magra Light										83
Total	42	42	42	42	42	42	39	39	00	72
NATIVE STATE LINES										
Bhavnagar Gondal Junagadh Porbandar	374	334	334	334	334	339	338	374	156†	172
Bhavnagar	44	44	44	44	44	44	44	44	44	44
Bhopal-Icaral*	113	113	113	113	113	113	113	113	113	113
Bhopal-Ujjain*	146	146	146	146	146	146	146	146	146	146
Bina Gonda Baran*	38	38	38	38	38	38	38	38	38	38
Birpur-Bhimnaga*	34	34	34	34	34	34	34	34	34	34
Cooch Behar	12	12	12	12	12	12	12	12	12	12
Cuttack	21	21	21	21	21	21	21	21	21	21
Dholpur Bar	90	90	90	90	90	90	90	90	90	90
Dhruvadra	93	93	93	93	93	93	93	93	93	93
Gadkwar's Debbol*	184	184	184	184	184	184	184	184	184	184
Gadkwar's Mehsana*	51	51	51	51	51	51	51	51	51	51
Gondal Porbandar	391	391	391	391	391	391	391	391	391	391
Gondal Light	10	10	10	10	10	10	10	10	10	10
Haridwar Branch	54	54	54	54	54	54	54	54	54	54
Haridwar	46	46	46	46	46	46	46	46	46	46
Haridwar Godavari Valley*	700	700	700	700	700	700	700	700	700	700
Jalpur	10	10	10	10	10	10	10	10	10	10
Jamun and Kashmir	54	54	54	54	54	54	54	54	54	54
Jamun	46	46	46	46	46	46	46	46	46	46
Jalmar Ralkot	700	700	700	700	700	700	700	700	700	700
Jodhpur Bikaner	10	10	10	10	10	10	10	10	10	10

* Worked by a Company

† These are the latest figures published in 1913

Mileage of Railway Lines in India open for Traffic at end of year—continued

Railways	1908	1904	1905	1906	1907	1908	1909	1910	1911	1912
NATIVE STATE LINES.—contd.										
Juanaid	10	10	10	10	10	10	10	10	89†	101
Khanpur-Chechura*	23	23	23	23	23	23	23	23	23	23
Kolar Gold Fields*	29	29	29	29	29	29	29	29	29	29
Krishnapur	70	79	79	79	79	79	79	79	79	79
Kumbha Zaathav	94	94	94	94	94	93	93	93	93	93
Lachmana Dhuri-Jahhal	94	94	94	94	94	93	93	93	93	93
Morvi	32	32	32	32	32	32	32	32	32	32
Morvi-Bharat	16	16	16	16	16	16	16	16	16	16
Mysore-Farjanguid*	34	34	34	34	34	34	34	34	34	34
Nagda-Ujjain*	380	380	380	380	380	380	380	380	380	380
Raman's*	32	32	32	32	32	32	32	32	32	32
Varanasi-Light*	32	32	32	32	32	32	32	32	32	32
Varanasi-Cannay*	32	32	32	32	32	32	32	32	32	32
Pipar Road-Bharvi Light	37	37	37	37	37	37	37	37	37	37
Rajpala*	107	107	107	107	107	107	107	107	107	107
Rajpala-Bhatinda	65	65	65	65	65	65	65	65	65	65
Rangli*	67	67	67	67	67	67	67	67	67	67
Rohmatur-Ochha*	42	42	42	42	42	42	42	42	42	42
Tasavally-Qullon*	3 285	3 385	3 468	3 471	3 517	3 620	3 742	3 852	3 974	4,188
Udaipur-Gulbarga	15	15	15	15	15	15	15	15	15	15
Vilapur-Kabul-Kadi*	8	8	8	8	8	8	8	8	8	8
Wardah	61	61	61	61	61	61	61	61	61	61
West of India Portuguese*	74	74	74	74	74	74	74	74	74	74
Total	26,956	27,646	28,235	29,097	30,010	30,576	31,490	32,099	32,839	33,454
Grand Total										

* Worked by a Company

† Formerly worked as part of the Bhavnagar-Gondal-Juanaid Porbandar Railway

‡ These are the latest figures published in 1915

Irrigation.

In the West irrigation is a rare luxury designed where it exists to increase the productivity of a soil sure of a certain crop under a copious and well distributed rainfall. In great parts of the East, and especially in India, it is a necessity to existence. For in India there are large tracts, such as the deserts of Sind and the South West Punjab which are practically rainless there are others, such as the Deccan plateau, where cultivation is exceedingly precarious, owing to the irregularity of the rainfall and the long intervals when the crops may be exposed to a blazing sun and a desiccating wind, there are some crops, like rice and sugar-cane, which, except in a few highly favoured districts, can only be matured by the aid of irrigation. There are great areas where a single crop which is called the *kharif* or rain crop can in normal years be raised by the unassisted rainfall, but where the second crop, the *rabi* or cold weather crop, is largely dependent on irrigation. Inasmuch as in India sixty-five per cent of the population is still dependent upon agriculture for the means of livelihood this brief summary indicates the enormous importance of irrigation to the community.

Its Early History

It is natural, in such conditions, that irrigation in India should have been practiced from time immemorial. In the history and imagery of the East there is no figure more familiar than the well, with primitive means for raising the water followed to-day much as they were in Bible days. In the early records of the peoples of India, dating back to many years before the Christian era, there are frequent references to the practice of irrigation. Wells have been in use from time immemorial most of the innumerable tanks in Southern India have been in use for many generations the practice of drawing off the flood waters of the Indus and its tributaries by means of small inundation canals has been followed from a very early date and in the submontane districts of Northern India are still to be found the remains of ancient irrigation channels, which have been buried for centuries in the undergrowth of the forests. But in the direction of constructing large and scientific works for the utilisation of the surplus waters of the great river little was done before the advent of British rule, and they are comparatively of recent date.

The State Intervenes.

Irrigation works in India may be divided into three main heads—wells, tanks and canals. The greatest and the most impressive are the canals, and these may arrest attention first, because they constitute one of the most enduring monuments to British rule. They have in British India been constructed by direct State agency in the early days of modern irrigation, certain works in the Madras Presidency were carried out by a guaranteed company, and the Orissa canal project was commenced through the same agency. Both Companies fell into difficulties, and the system into disrepute, during the Viceroyalty of Lord Lawrence it was decided that all irrigation works which promised a reasonable return on the capital expenditure

should be constructed through direct agency, and should be constructed by the State from loan funds as productive public works.

The British Inheritance.

The British Government in India inherited a few major irrigation works. One of these was the Grand Anicut—the local term for barrage—stretching across the width of the Cauvery River in Madras. In the Punjab there were a few canals, chiefly inundation—that is above the normal bed of the river and fed from the flood current—constructed by the Muhammadan and Sikh rulers, and owing to its proximity to Delhi the waters of the Jumna were brought to the neighbourhood of the city by the Mughals. It is doubtful if these works ever irrigated any considerable areas or conferred much benefit on the people, but they suggested the model on which the British engineers worked. In Southern India, Sir Arthur Cotton constructed the upper Anicut across the Coleroon River so as to secure the full level required for the utilisation of the Grand Anicut across the Cauvery. He also designed the works which constructed and improved at an outlay of three crores, irrigate more than two million acres in the Godavari and Krishna deltas. In Northern India Sir Proby Cautley constructed the great Ganges Canal, which takes off from the river near Hardwar and which in magnitude and boldness of design has not been surpassed by any irrigation work in India or elsewhere. In this way were laid the foundations of the irrigation systems in India. The work was gradually pushed forward. In Northern India a great system of canals was constructed, chiefly in the Punjab and the United Provinces. Some of these like the great Chenab Canal, ought to be classed amongst the wonders of the world. It irrigates nearly two million acres, or about two-thirds of the cultivable area in Egypt, with an ordinary discharge of eleven thousand cubic feet per second or about six times that of the Thames at Teddington. The Chenab and the Jhelum Canals brought under irrigation great areas of Government waste, and thereby allowed the system of State colonization, which relieved the congestion on the older villages of the Punjab, and established colonies of over one million of people on what had been the desolate abode of a handful of nomads. In the Bombay Deccan a few protective works were constructed, like Lake Fife and Lake Whiting drawing their supplies from the Ghats and spilling them over the arid tracts of the Deccan. In Madras there was completed the boldest and most imaginative irrigation work in the world by the device of constructing a reservoir at Pertyar on the outer slopes of the Ghats, and carrying the water by means of a tunnel through the intervening hills, the Madras Government turned the river back on its watershed and poured its waters over fertile lands starved by want of moisture. But these Deccan works did not pay. The cultivators would not use the water in years of good rainfall, and there was not enough to go far in seasons of drought, the inevitable result of such conditions was to concentrate attention upon the remunerative works on the rivers of the Punjab, and to leave protective irrigation to wait for want of funds.

The Irrigation Commission.

In order to substitute policy for spasmodic effort, the Irrigation Commission was appointed by Lord Curzon's Government in 1901. It made a detailed survey of the conditions of the country, and produced the report which is the foundation of Indian Irrigation policy to-day. The figures compiled by the Commission illustrate the progress which had been made up to that period. They showed that out of an area of 226 million acres annually under crop in the irrigating provinces of British India in round numbers 44 millions acres, or 19½ per cent, were ordinarily irrigated. Of the total area irrigated 18½ million acres of 42 per cent, was watered by State works (canals and tanks) and 25½ million acres, or 58 per cent, from private works of

which rather more than one half was from wells. During the previous quarter of a century the area irrigated by Government works had been increased by 8 million acres, or by eighty per cent and the Commission estimated that during the same period the area under private irrigation had increased by at least three million acres or a total addition to the irrigated area in British India of 11 million acres or 33 per cent. Including the Native States the area under irrigation annually within the British Empire was placed at 68 million acres (16 million from canals, 16 million from wells, 10 million from tanks, and 8 million from other sources). The financial results for works of all classes are shown in the following table—

Class of Work	Capital Outlay to end of 1900-01 Lakhs of Rupees.	Interest charges at 4 per cent on Capital Outlay Lakhs of Rupees.	Net Revenue in 1900-01 Lakhs of Rupees	Net Revenue less charges for interest. Lakhs of Rupees.
Major Works	96 68 72	146 55	259 70	118 15
Minor Works for which capital accounts have been kept.	320 04	12 80	19 18	6 88
Other Minor Works			87 87	87 87
Total	59 83 76	159 35	366 76	207 40

In round numbers the State irrigation works then yielded a net revenue after meeting all charges, including interest of about two crores of rupees and irrigated annually over nineteen million acres.

The Commission's Programme.

The Commission reported that the field for the construction of new works of any magnitude on which the net revenue would exceed the interest charges was limited, being restricted to the Punjab and parts of Madras—tracts for the most part not liable to famine. They recommended that works of this class should be constructed as fast as possible, not only because they would be profitable investments but also because they would increase the food supply of the country. Then addressing themselves to the question of famine protection they worked out a very interesting equation. Taking the district of Sholapur in the Bombay Deccan, perhaps the most famine susceptible district in India they calculated that the cost of famine relief in it was 5 lakhs of rupees a year. From this deduction, and making allowance for the advantage of famine avoidance as compared with famine relief, they said that the State was justified in protecting the land in such a district at a cost of 221 rupees per acre. For the general protection of the Bombay Deccan they recommended canals fed from storage lakes in the Ghats, where the rainfall has never been known to fall even in the driest years. For Madras they recommended the investigation of the old Tungabhadra project, and of a scheme for storage work on the Kistna. They proposed that Government should undertake the construction of protective works for the rice-growing districts of the Central Provinces and the Ken Canal project in Bundelkhand. The Commission further sketched out a rough programme of new major works to be constructed in different

parts of India, which would cost not less than 44 crores of rupees and would result in an increase of 6 500 000 acres to the irrigated area. They estimated that the construction of these works would impose a permanent yearly burden of nearly 74 lakhs on the State, through the excess of interest charges on capital cost over the net revenue produced from the works. Against this would have to be set the reduction in the cost of future famines resulting from the construction of the works, which the Commission put at 31 lakhs per annum. The balance of 43 lakhs would represent the net annual cost of the works to the State, or the price to be paid for the protection from famine which the works would afford, and for all other indirect advantages which might be attributed to them.

The New Policy

The principal effect of the Irrigation Commission's report was to substitute policy for spasmodic effort, and the progress since made has been remarkable. The action taken on the recommendation of the Commission is thus summarised by the Government of India in their last annual review—

Punjab Tripartite Project.—In the year 1901 a project was submitted to the Government of India for the irrigation of the lower Bari doab by means of a canal taking out of the Sutlej river. It was suggested to the Irrigation Commission that it would be more advantageous to carry out this work as an adjunct of a more comprehensive scheme for the irrigation of the Jech and Rechna and lower Bari doabs. This scheme relied on the possibility of utilizing

the ample surplus waters of the Jhelum river to serve those vast areas, thus leaving the Sutlej and Beas waters free for utilization in the Sutlej valley. Subsequent investigations showed that this idea was feasible and the project consisting of three distinct systems, the Upper Jhelum, the Upper Chenab and the Lower Bari Doab canals was sanctioned in 1904. It has now been practically completed the only important work which still remains to finish being the headworks of the Upper Jhelum canal at Mangla. It was hoped that the Upper Jhelum canal the remaining link in the chain, will be opened in December. The total estimated cost of the combined system is $10\frac{1}{2}$ crores of rupees.

Sind Sagar Canal.—The Irrigation Commission expressed a hope that it would be possible in the future to undertake the construction of a canal drawing its waters from the Indus for the irrigation of the wide expanse of desert in the Mianwali and Murafargah districts known as the Sind Sagar doab. The investigation of the project has been deferred until other far more promising schemes are advanced.

Woolar Lake Storage.—It was suggested to the Commission that the Woolar lake in Kashmir should be converted into a storage reservoir for the purpose of augmenting the water supply of the Triplic project. This proposal was however dropped in 1905 because the Government of India were advised that the areas to be served by the Triplic Canal system would not require more water than was already available in the rivers from which the canals derived their supplies. It has since been found however that the dredging operations by lowering the bed of the lake have diminished the flow of the Jhelum river at certain periods. It will consequently become necessary to construct a dam across the Jhelum in order to give an adequate supply of water to the several systems dependent on the cold weather supply of the river and the Government of India have recently ordered the preparation of a project for this purpose.

Sutlej Valley Project.—The Commission drew attention to the possibility of increasing irrigation in the Sutlej valley by the construction of weirs on the river so as to give a more assured and regular supply of water in all seasons to the existing British inundation canals in that tract. Subsequent investigations have shown that a more extended system of irrigation is possible by which the Native States of Bahawalpur and Ukmar would also benefit. A preliminary project is now under investigation.

Sind.—The question of converting the net work of inundation canals in Sind into perennial channels by means of weirs across the river Indus has been considered at various intervals during the past 50 years. As a result of the investigations that were made a scheme was drawn up for the construction, at a cost of some $7\frac{1}{2}$ crores, of a barrage at Sukkur with a canal on the left bank which would have been the largest irrigating channel in India. The project as drawn up did not meet with the approval of the technical advisers of the Secretary of State and it is being further investigated by the Bombay Engineers.

Bombay Deccan.—The Chankapur project has been finished. The Godavari canals are approaching completion while work on the Pravara project is in progress. The Nira Right Bank canal project was sanctioned and commenced in 1912. In respect of size and cost it is the most important irrigation work of the protective class undertaken in India. The work involves the enlargement of the reservoir on Lake Whiting which feeds the existing left bank canal so that the capacity of the reservoir will be increased from 5,300 to 24,800 million cubic feet. A canal 109 miles long will be constructed and the waters will be distributed by 4 branches and 63 distributaries. The work which is estimated to cost 257 lakhs of rupees and to occupy eleven years in construction will afford protection to a tract in the Sholapur district which has the reputation of being one of the most liable to famine in the whole of India. Another important protective scheme the Gokak canal has recently been sanctioned by the Secretary of State. It contemplates the protection of some 493,000 acres in the Bijapur and Belgaum districts in British territory and in the Native States of Kolhapur, Mudhol, Jamkhadi, Sangli and Kurumwad at a cost of Rs 197 lakhs.

Madras.—The Commission recommended the investigation of three very important works for this presidency viz the Tungabhadra project, and the Kistna and the Cauvery Reservoir projects. Detailed investigations have shown that the first could not be carried out except at prohibitive cost and the project has accordingly been abandoned. The other two promise to prove productive. The plans and estimates of the Cauvery project which will involve the construction of the largest dam of its kind in the world, have been approved by the technical advisers of the Government of India. The consideration of the project cannot, however be further proceeded with until a settlement has been arrived at in respect of the claims of the Mysore Durbar in the waters of the Cauvery River. Plans and estimates for the Kistna Reservoir project have also been prepared and are being revised in the light of certain suggestions made by the Inspector General of Irrigation in India. A project to reclaim Divi Island, a fertile deltaic tract at the mouth of the Kistna, by means of flood banks and to irrigate this area by a pumping installation which was approved by the Irrigation Commission has been carried out. The work is now in operation.

United Provinces.—The Commission delineated in rough outline a project for the utilization of the waters of the Sarda river in Ondh for supplementing the supplies of canal systems which derive their water from the Ganges and Jumna rivers. The proposals were thoroughly investigated, and a project estimated to cost some 6½ crores was prepared on the lines suggested by the Commission. In view of certain difficulties inherent in this scheme the Government of the United Provinces has drawn up an alternative project, estimated to cost Rs. 330 lakhs which is now engaging consideration.

The Commission recommended the investigation of canals from the rivers flowing through Bundelkhand, and the Mirzapore and Allah-

had Districts. The investigations have resulted in the execution of the Ken and Dhasan canals, the Bhadwan Reservoir project, and many other smaller schemes. The result is that the trans-Jumna Districts of these Provinces which were previously so liable to famine are now fairly well protected.

Central Provinces.—A number of small but very useful tanks designed to protect precarious tracts from famine have come into existence as a result of the measures taken on the Commission's recommendation. In addition three large canal systems known as the Tendua, the Weinganga and the Mahanadi canals which will derive their supplies from the rivers after which they have been named have been sanctioned. The last named has already come into operation.

Results of the New Policy

We can now turn to the results of this activity

Triennium.	Capital Outlay	Area.	Value of Crops.	Direct Profit to Government.	Percentage of Net Revenue on Capital Outlay
1908-11	31 49	32 10	51 74	2 28	10 76
1908-09	30 32	31 06	48 25	2 03	10 44
1908-05	29 78	30 09	43 66	1 68	9 71
1898-02	26 06	19 06	39 67	1 55	9 68
1898-00	25 01	17 25	37 40	1 53	10 09
1893-96	22 94	14 49	29 88	1 03	8 25
1890-93	21 66	13 55	26 87	0 88	7 60
1887-90	20 42	13 13	24 33	0 76	7 51

The results for the last year when figures are available (1913-14) are given in a subsequent page. The following striking table shows them for the latest triennium —

	Capital Outlay (Direct and Indirect) to end of Year	Gross Receipts	Working Expenses	Net Receipts	Percentage of Net Receipts on Capital Outlay	Area irrigated.
	£	£	£	£		Acres.
Major Works	41 100 185	4 499 123	1 338 761	3 160 362	7 69	15 242 939
Minor Works	4 396 422	344 676	151 774	192 902	4 39	1 716 506
Total for 1913-14	45 496 607	4 843 799	1 490 535	3 353 264	7 37	16 9 9 445
Total for 1912-13	43 443 253	4 543 262	1 449 296	3 093 966	7 12	16 480 180
Total for 1911-12	41 510 000	4 116 000	1 590 000	2 725 000	6 6	17 092 000

These figures take no account of the indirect advantages of irrigation. They are —The produce of the country is greatly increased the railway receipts are enhanced famine or pestilence is diminished and misery and economic disturbances reduced. Nor do they take account of the progress made in Native States, some of which, like Gwalior and Mysore, have shown conspicuous liberality.

Future of Irrigation.

It is sometimes asserted, by those who take only a superficial view of Indian irrigation that

The following table shows the developments effected on works now in operation in the twenty-four years ending with the triennium 1908-11. The percentages of the advancements in this triennium over the figures of 1887-90 are —Capital outlay 56 irrigated area 68 net revenue 123 return on capital outlay 43 and on net profit 200.

The average capital outlay for the triennium 1908-11 was £31 491,253. After meeting all the charges for maintaining and operating the works, and also all interest charges, the net profit which accrued to Government during the twenty-four years ending with 1910-11 was £35,087,835 and this more than repaid the entire capital outlay on the works in operation from the commencement of British rule up to the end of the period mentioned. In the following table the areas are in millions of acres and the amounts in millions of pounds sterling.

we are approaching the end of the programme of productive works. There could be no greater fallacy. The scheme of great works is still vast. There is now under consideration, as explained in the section where the action taken on the Commission's recommendations is summarised, a project for the improvement of irrigation in Sind, by the construction of a weir at Sukker and the digging of a series of main canals, the substitution of perennial for inundation canals, and flow instead of lift irrigation. The cost of this is estimated at Rs. 781 lakhs (£5 311 millions). This scheme is estimated to confer

the benefits of assured irrigation on 1,847,347 acres, which now receive a precarious supply and to add 588,708 acres of new irrigation. The return on capital expenditure estimated at 5 to 10 per cent with an enhanced land revenue, and 4 to 7 per cent if the land revenue is not enhanced. The Lower Sutlej Canal in the Punjab which will use the Beas water now under investigation will irrigate a million and a half acres. The great Ganga-Ganges-Jamna feeder in the Punjab and the United Provinces now under investigation would cost £4,500,000 return 7 per cent on the capital, and benefit twenty-five districts and three Native States. If after the construction of the Sukker Barrage there are found to be surplus waters in the Indus, the Titano Sind-Sagar scheme may become practicable. The scope for irrigation in India is apparent from the fact that in addition to works under construction or sanctioned, there are under consideration or investigation estimated to cost Rs. 4,350 to Rs. 4,657 lakhs of rupees.

Economic Changes

Nor does this estimate represent anything like the full possibilities of irrigation in India. The country is undergoing a great economic revolution. The rise in the prices of produce, the increased economic strength of the people are making profitable works which a decade ago were economically impracticable. This process will continue. The indirect benefits of irrigation are more fully realised. In no case is this more marked than in the railway receipts. The Chenab and the Jhelum canals have been the principal factors in converting the North Western Railway from a drain on the Exchequer into a source of profit. The accumulation of capital, the spread of the co-operative credit movement, the increasing use of power such as oil engines working pumps and cheap electricity from hydro-electric projects, will bring under cultivation millions of acres of fallow and waste. It may be said with confidence that for a generation at least the demands for irrigation in India will more than absorb the money producing power of the Government.

Irrigation Dues.

The charges for irrigation whether taken in the form of enhanced land revenue or of occupiers' and owners' rates vary very much depending on the kind of crop, the quantity of water required for it and the time when it is required, the quality of the soil, the intensity or

consistency of the demand, and the value of irrigation in increasing the outturn. In the immediate vicinity of Poona a rate of Rs. 50 an acre is paid for sugarcane. This is quite an exceptional rate. It obtains over only a limited area and is made practicable only because the cultivators, by high manuring, can raise a crop valued at nearly eight-hundred rupees an acre. On other parts of the Mutha canal the rate varies from Rs. 40 to Rs. 12 and on other canals in the Bombay Deccan from Rs. 25 to Rs. 10 per acre. In Madras the maximum rate for sugarcane is Rs. 10 and in the Punjab it does not exceed Rs. 8-8. The rate charged for rice varies in Madras from Rs. 6 to 2, and in Bengal from Rs. 2-8 to Rs. 1-8 per acre. In both these provinces irrigation is practically confined to rice. In the Punjab where this crop is not extensively grown the rate varies from Rs. 7 to Rs. 3-4 per acre. The ordinary rate in the Punjab for wheat, which is the principal crop, varies from Rs. 4 to Rs. 2-12 and for fodder crops from Rs. 3 to 2-8 per acre. The average rate realised from major works for irrigation of all kinds is about Rs. 9-8 per acre, the provincial averages being Rs. 1-9 in Sind and Bengal, Rs. 8-4 in the Punjab, Rs. 4-8 in Madras, the United Provinces and the Bombay Deccan. The charges for irrigation may be taken as varying from 10 to 12 per cent of the value of the crop except in Bengal and the Bombay Deccan where the average is little more than six per cent.

Canals and Navigation.

Twenty years ago a great deal was heard about the desirability of constructing navigation canals, either in conjunction with irrigation, or for transport pure and simple. The idea is now exploded. It received a certain stimulus from the unprofitable character of Indian railways and the handsome earnings of the irrigation works. It received its quietus when the railways turned the corner. Broadly speaking it may be said that navigation and irrigation rights clash. Navigation is not only costly but it cannot be maintained during the season of short supply, except to the detriment of irrigation. Outside the deltaic tracts of Bengal, Orissa, Madras and Sind navigable canals will never be of much use for the purpose of inland navigation. There is however considerable scope for connecting canals to improve the facilities for navigation on the great river system of Eastern Bengal. This is a question which is now engaging the attention of the Government.

WELLS AND TANKS

So far we have dealt only with the great irrigation schemes. They are essentially exotic products of British rule, the real eastern instrument is the well. The most recent figures give thirty per cent of the irrigated area in India as being under wells. Moreover the well is an extremely efficient instrument of irrigation. When the cultivator has to raise every drop of water which he uses from a varying depth he is more careful in the use of it. Well water costs at least three times as much duty as canal water. Again owing to the cost of lifting, it is generally used for high grade crops. It is estimated that well irrigated lands produce at least one-third more than canal watered lands. Although the huge areas brought under cultiva-

tion by a single canal scheme tend to reduce the disproportion between the two systems, it must be remembered that the spread of canals increases the possibilities of well irrigation by adding, through seepage, to the store of subsoil water and raising the level.

Varieties of Wells.

Wells in India are of every possible description. They may be just holes in the ground, sunk to subsoil level, used for a year or two and then allowed to fall into decay. These are temporary or kacha wells or they may be lined with timber or with brick or stone. They vary from the kacha well costing a few rupees, to the masonry well, which will run into thou-

sands, or in the sandy wastes of Bikanir where the water level is three hundred feet below the surface, to still more. The means of raising the water vary in equal degree. There is the plectral or weighted lever, raising a bucket at the end of a pivoted pole, just as is done on the banks of the Nile. This is rarely used for lifts beyond fifteen feet. For greater lifts bullock power is invariably used. This is generally harnessed to the mot, or leather bag which is passed over a pulley overhanging the well, then raised by bullocks who walk down a ramp of a length approximating to the depth of the well. Sometimes the mot is just a leather bag more often it is a self acting arrangement, which discharges the water into a sump automatically on reaching the surface. By this means from thirty to forty gallons of water are raised at a time and in its simplicity and the ease with which the apparatus can be constructed and repaired by village labour, the mot is unsurpassed in efficiency. There is also the Persian wheel, an endless chain of earthenware pots running round a wheel. Recently attempts have been made, particularly in Madras, to substitute mechanical power, furnished by oil engines, for the bullock. This has been found economical where the water supply is sufficiently large, especially where two or three wells can be linked. Government have systematically encouraged well irrigation by advancing funds for the purpose and exempting wellwatered lands from extra assessment due to improvement. These advances, termed *tankas*, are freely made to approved applicants, the general rate of interest being 8½ per cent. In Madras and Bombay ryots who construct wells, or other works of agricultural improvement, are exempt from enhanced assessment on that account. In other provinces the exemption lasts for specific

periods, the term generally being long enough to recoup the owner the capital sunk.

Tanks.

Next to the well, the indigenous instrument of irrigation is the tank. The village or the roadside tank is one of the most conspicuous features in the Indian scene. The Indian tank may be any size. It may vary from a great work like Lakes Nile and Whiting in the Bombay Presidency or the Periyar Lake in Travancore holding up from four to seven billion cubic feet of water and spreading their waters through great chains of canal to the little village tank irrigating ten acres. They date back to a very early stage in Indian civilisation. Some of these works in Madras are of great size, holding from three to four billion cubic feet, with water spreads of nine miles. The descriptions of two large tanks in the Chingleput district of Madras, which still irrigate from two to four thousand acres are said to be over 1,100 years old. Tank irrigation is practically unknown in the Punjab and in Sind, but it is found in some form or other in all other provinces, including Burma and finds its highest development in Madras. In the ryotwari tracts of Bombay and Madras all but the smallest tanks are controlled by Government. In the zamindari tracts only the large tanks are State works. According to the latest figures the area irrigated from tanks is about eight million acres, but in many cases the supply is extremely precarious. So far from tanks being a refuge in famine they are often quite useless inasmuch as the rainfall does not suffice to fill them and they remain dry throughout the season. The value of the crops raised on irrigated lands in India in 1913-14 was Rs. 81 crores.

CANAL COLONIES.

The canal colonies represent the extreme case of improvement in agricultural conditions effected by irrigation. In the Punjab uplands now watered by the Lower Chenab and Lower Jhelum Canals, irrigation has completely altered the face of the country so that it supports in unparalleled prosperity a population numbering a hundred to every one of its former poverty-stricken denizens, while land once deemed as a gift sells with ease at £15 an acre. The largest of the canal colonies, the Chenab Colony on the Lower Chenab Canal, lies in the Rechna Doab, between the Chenab and Ravi Rivers, and has a total area of some 3,900 square miles. This area was until 1892 sparsely inhabited by nomad pastoral tribes, whose total numbers were estimated at less than 70,000. Cultivation was rendered possible only by the construction of the Chenab Canal. As fast as the canal and its distributaries were constructed, the land (which was waste and owned by Government) was allotted to various classes of grantees, the bulk of the grants being made to immigrant peasants, including men from the best agricultural districts in the Province. Since its foundation the colony has enjoyed remarkable prosperity. The nomads to whom a large portion of the land was allotted, though without any previous knowledge of agriculture, assimilated the practices of their new neighbours with extraordinary

success, and the whole colony is now as well cultivated as almost any part of India. The work of colonisation began in 1892. By 1901 the population had increased to over 791,000 and at the end of 1901-02 some 2,470 square miles out of a total allottable area of about 2,660 square miles had been allotted. In September 1912 the allottable area was returned at 3,040 square miles and the area actually allotted at 2,870 square miles while the total population had risen to over 1,111,000. The export of wheat from the Lyallpur district in the last year of the decade reached the total of 150,000 tons.

The Jhelum Canal Colony on the Lower Jhelum Canal, occupies some 900 square miles of State land in the Shahpur District, and is a more recent development. Colonisation began in 1902, and was conducted on lines similar to those adopted in the Chenab Colony but a large proportion of the grants were made on the condition that a suitable mare should be maintained for breeding purposes. Between 1906 when an informal census was taken, and 1911 the population of the colony proper increased from 72,734 to 161,906. Up to September 1912 some 630 square miles had been allotted out of an allottable area of about 750 square miles.

The Chenab Colony, a much smaller colony on the Bari Doab Canal in the Lahore District,

dating from 1897, was returned in 1913 as having a total allottable area of less than 130 square miles, of which practically the whole had been allotted. The population was 16,468 in 1901 and 43,494 in 1911.

Other old canal colonies in the Punjab such as the Sohag Para Colony in the Montgomery district, and the Sialkhal Colony in the Multan district, had by the beginning of the period under review reached their full development and become merged in the surrounding districts. Before the end of the decade colonisation in the newer colonies also had been practically completed, and their administration had been almost completely assimilated to that of ordinary districts.

Colonisation has also been carried out on a considerable scale since 1901 on the Jinnah Nahr, and Dad canals in Sind.

Schemes for colonisation on the canals included in the Punjab Triple Canal Project have been prepared.

A concession of some importance was made to peasant colonists in the Punjab in 1910 when it was decided to allow them to purchase proprietary rights, on very favourable terms in all colonies except the Jhelum Colony. The concession was made possible by the passing of the Alienation of Land Act, which secures

in another way the result that the former restriction of the peasant's right to an inalienable right of occupancy was intended to achieve.

In the Administration Report for the Punjab, 1913-14 the condition of these colonies is thus described.—The Lower Chenab Lower Jhelum and Chumliani Colonies continued to prosper. Allotment in these colonies is now almost at an end and though still presenting features in administration which require special attention, their administration is assimilating more and more to that of an ordinary district. It is in these new colonies that enterprise and a progressive spirit should specially appear and this is evident in the rapid progress of the co-operative movement in all three in the establishment by private enterprise of towns such as Warburton and Nankana and in the success of the Zamindar Trading Company in the Lower Jhelum Colony which sold 87 lakhs worth of grain during the year. Re-assessment on the Lower Chenab has resulted in a substantial increase of revenue and the re-assessment on the Lower Jhelum has been accepted without demur. Preliminary work in the Lower Bari Doab Colony is proceeding, colonisation has been begun on the Upper Chenab and the Upper Jhelum Colony scheme has been submitted to Government.

PRESENT POSITION OF IRRIGATION

During the year 1913-14 the total area irrigated by all the productive public works, excluding branches in Native States of the Punjab amounted to 16,320,500 acres. Towards this total the Punjab canals contributed nearly 7 million acres, Madras 3½ the United Provinces 3 and Sind 1½ million acres. In Behar and Orissa an area of 810,000 acres was attained. The return on capital is highest in the Punjab where the canals yielded 15.46 per cent. The next province in this respect is Madras where a return of 13.76 per cent. was realised. In the United Provinces and Sind the returns realised were 8.10 per cent. and 5.99 per cent. respectively. Details regarding other provinces and administrations will be found in Statement I. The return on productive works as a whole excluding those under construction and not earning revenue, was 9.74 per cent. on the capital outlay.

Protective Works.—There were in operation 30 protective works which together irrigated a total of 563,200 acres. The most important works are the Ramtek reservoir in the Central Provinces, the Betwa and Ken canals in the United Provinces, the Budhikulya in Madras and the Nira and Godavari systems in the Bombay Presidency. A number of small but interesting tank works are to be found in the Central Provinces. They were sanctioned as experimental works, in accordance with the recommendations of the Irrigation Commission, in order to test how far the people were willing to resort to irrigation for the maturing of their crops and what water rates they were prepared to pay. The results obtained are gratifying and show that the people are beginning to realise the great advantage of irrigation.

Minor Works.—There were 119 works opened in 1913-14, the majority of which are

in Bombay and Madras. Nine are purely navigation works. The net revenue paid by works of this category amounted to Rs. 39,91,790 (excluding navigation canals) or a return of 7.66 per cent. on the capital outlay against 7.61 per cent. in the previous year. Nearly all the minor works in Sind return exceptionally high percentages, but as some large projects with which it is intended to amalgamate many existing works are under consideration their transfer to the major works class has been postponed for the present. The total area served by works of this class was 2,250,700 acres. This figure includes the area shown under Burma viz. 489,570 acres which is not under actual irrigation but represents the area of cultivation on lands reclaimed by river flood embankments.

There are numerous works which maintain only revenue accounts. They are credited with a share of the land revenue depending on their maintenance and are debited with all expenditure incurred on construction, extension, improvements and maintenance. During the year reviewed these works irrigated an area of 2½ million acres and returned a net revenue of Rs. 33,27,097.

Practically all the works of the class which have neither capital nor revenue accounts are situated in the Madras Presidency. They consist of some 37,000 tanks and irrigation channels mainly the former, the improvements and repairs of which are executed by the Public Works Department, or in the case of the smaller works, by civil officers. The area irrigated by works of this class in 1913-14 aggregated 3,275,200 acres. The area irrigated in 1912-13 was 3,421,917 acres.

The Lower Chenab Canal continues to show a record of remarkable progress. It served

2,245,586 acres and earned a gross revenue of more than Rs. 184 lakhs. The net revenue realized from this canal was equivalent to 45.15 per cent. on capital outlay.

The Lower Jhelum Canal also continues to show improvement, the net revenue having gone up to 80.83 per cent. The large increase in net revenue on the Upper Butej Inundation Canals (21.75 on capital outlay against 5.65 per cent. in the previous year) is attributable to the better condition of the river and the canals during 1912-13. This increased the water area on those canals, and so affected the collections of the year under report.

Triple Project.—Rapid progress was made during the year on the Triple project. On the Upper Chenab Canal the area irrigated showed a falling off of 55,890 acres as compared with the project forecast, but the figures of the two years (1912-13 and 1913-14, the years of its working) taken together were well in excess of the forecast for those years, viz. 250,272 acres against 240,000 acres.

The Lower Bari Doab Canal was formally opened on the 12th April 1913 and irrigation was begun in July 1913. The result of the first year's working was highly satisfactory, the actual area irrigated being considerably more than was expected.

Neither the Upper Chenab Canal nor the Lower Bari Doab Canal can work to full advantage until the Upper Jhelum Canal has been completed as they cannot get a cold weather supply until the surplus water of the Jhelum river can be made available to augment the supplies in the Chenab and Ravi on which the Upper Chenab and Lower Bari systems are at present dependent.

Very satisfactory progress was made during the year in the Upper Jhelum Canal. It was expected that the canal would be opened in

the autumn of 1914, but in April the river bund breached, and the foundation pit and deep cutting beyond were flooded. This accident caused a set back but the canal was opened in December 1915.

Bombay Deccan.—All the important protective irrigation works in the Bombay Presidency are situated in the Deccan Irrigation Division. Of the works in being the Nira Left Bank Canal is the largest in the Deccan and lies in the south of the Poona District. The area irrigated on this canal has steadily increased during recent years and yielded an increasing gross revenue which in this year reached the satisfactory figure of 8 per cent. on the total cost of the work. Of the new protective works the Godavari Canals project is approaching completion. The storage work called Lake Beale is on the Darna River. The lake filled well and supplied far more water than is yet required for the canals. On the whole the year was very favourable in the Deccan where an increase of 55,000 acres above the average was recorded.

The two large protective works under construction in the Deccan are (1) the Pravara River Works project, and (2) the Nira Right Bank Canal project. The storage for the former is at Bhandardara and is termed Lake Arthur Hill. It will be three or four years before an appreciable quantity of stored water can be let down from Lake Arthur Hill for irrigation under the Pravara Canals. Although work on the Nira Right Bank Canal was somewhat hampered by scarcity of labour on the whole good progress was made on this project, the total expenditure of the year amounting to over Rs. 264 lakhs. This work, on completion will be largest protective irrigation work in India.

Results of irrigation works in operation.

The following table summarises the results of irrigation works for all India during 1913-14 in comparison with those of the two previous years.

Class of work.	Capital outlay to end of the year on works in operation	Gross revenue during the year	Net revenue during the year	Percentage of net revenue of capital outlay to end of year	Net profit during the year (i.e. net revenue less interest charges)	Area irrigated.
	Rs.	Rs.	Rs.	Per cent.	Rs.	Acres.
I.—Productive	47,90,13,006	6,87,56,302	4,60,75,823	9.74	3,12,57,188	16,320,500
II.—Protective	6,71,62,146	17,30,548	7,80,180	1.09	—13,57,731	532,800
III.—Minor works for which capital and revenue accounts are kept (including works under construction)	8,59,46,330	51,70,187	28,63,531	4.39	14,87,767	2,250,700
IV.—Minor works for which only revenue accounts are kept		58,28,516	33,27,097			2,513,800
V.—Works for which neither capital nor revenue accounts are kept		1,51,86,847	97,44,262			8,276,200
Total 1913-14	63,21,21,482	9,48,71,853	6,88,70,378	(a) 8.22		24,618,400
Total 1912-13	56,54,11,669	8,83,43,838	5,78,98,082	(a) 8.06		24,515,166
Total 1911-12	45,84,86,511	7,97,09,658	5,06,11,534	(a) 7.53		23,287,584

(a) Percentage calculated on works of classes I, II and III.

Value of Irrigated Crops

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Expenditure by the State.

The subjoined table exhibits the outlay incurred by the State during the year 1913-14 on all classes of irrigation works —

	Capital outlay (direct charges)	Minor additions, maintenance, and working expenses (direct charges)
<i>Works under construction.</i>	Rs.	Rs.
Productive	1 23 29,821	
Protective	23,21,752	
Minor	6 54,883	
Total	1,59 06 456	
<i>Works in operation</i>		
Productive	71 32,010	1 80 45,300
Protective	53 98,518	9,52,144
Minor	7 05 051	22,06 724
Total	1 32,35 579	2 12,02,228
Works under classes IV and V		91,06 323
Grand Total	2,91 42,035	3,03,07 551

Value of the Crops.

A comparison of the acreage of crops matured by means of the Government irrigation systems, with the total area under cultivation in the several provinces is given below —

Province	Net area cropped	Area irrigated by Gov- ernment irrigation works	Percentage of irrigated area to total cropped area.	Capital cost of Government irrigation works to end of 1913- 14 in lakhs of rupees	Estimated value of crops raised on areas receiving State irrigation, in lakhs of rupees.
	Acrea-	Acrea-	Per cent.		
Burma	14,147 000	157 000	8 9	210	478
Bengal	24 269 000	104 000	0 4	229	59
Bihar and Orissa	7,810 000	856 000	11 0	669	364
United Provinces of Agra and Oudh.	32,633,000	3,450,000	10 5	1 203	1,590
Ajmer Merwara	284 000	14,000	4 9	35	4
Punjab	22,273,000	7 812,000	34 1	1 684	3,645
North-West Frontier	2,832,000	24,000	8 6	63	123
Sind	4 544 000	3,554,000	77 2	317	790
Bombay Deccan	23,616 000	399,000	1 3	495	205
Central Provinces (ex- cluding Berar).	17,489,000	75,000	0 4	94	41
Madras	38,344,000	7 143,000	18 6	1,087	1 831
Baluchistan	21,000	7,000	23 3	35	2
Total	193,965,000	24,514,000	12 8	6,121	5,142

Land for Soldiers.

On October 13th 1915, the Government of India issued in a more complete form than has hitherto been available a summary of their colonization policy which is of special interest in relation to the provision of land for ex-soldiers in the course of this they said —

The older canals left unirrigated the upper portions of the Jech and the Rechina Doabs and the lower parts of the Bari Doab. The canals, the triple project—the upper Jhelum the upper Chenab and the lower Bari Doab canals—will bring water to much of the land in the hitherto unirrigated portions of these three Doabs. The first and second of the canals though they will irrigate some 150,000 and 600,000 acres respectively give little scope for schemes of colonization as the areas of the Government of India included within the limits of irrigation are comparatively speaking small. On the lower Bari Doab canal however the area available for colonization is something like 1,200,000 acres. The bulk of the land about 750,000 acres (or 10,000 rectangles of 75 acres apiece) is to be given out on terms which will encourage the breeding of horses and mules. About 12,000 rectangles will be distributed for the most part in grants of one rectangle each to peasant colonists and ex-soldiers for cultivation. No conditions in regard to horse and mule breeding will attach to the tenure of these rectangles but the grantees will be eligible for extra rectangles to which such conditions apply. Of the 1,100,000 rectangles about 70,000 have been set apart for ex-soldiers and for the rest selections have already been made from the peasants of districts lying west of the Satlej.

Of the remaining 10,000 rectangles 7,000 will constitute the horse and mule breeding grants. For these the holders of the 17,000 rectangles mentioned above will compete. The land will be given out on ten years leases on condition that the tenant of each rectangle maintains a mare. A large proportion of the competitors will be military men. The strong military element among the colonists should go a long way to ensure the success of this part of the scheme. Ex-cavalry men especially should make first-rate breeders. The soldier grantees will be selected by the military authorities after the war and will probably be for the most part retired officers and non-commissioned officers.

There are only about 75,000 acres of Government land irrigated by the Upper Chenab Canal and of this 62,000 acres will receive perennial irrigation whilst the remainder will be irrigated for the kharif harvest only. On the Upper Chenab Canal and on the Upper Jhelum Canal no more than 40,000 acres are available for colonization. Out of this provision has been made up to a maximum of 1,000 acres for reward grants to persons in the Peshawar division who rendered assistance to the criminal administration. 10,000 acres are to be given as compensation grant and another 6,000 acres will be kept in reserve for rewards to the army. 60,000 acres have been provided for tenants now holding land on the Lower Jhelum Canal whom it is desired to remove in order to allow for the extension of irrigation. 10,000 acres are desired for special reward grant to military officers and the balance will provide for grazing grounds and miscellaneous requirements.

Projects under investigation.

Province	Name and probable classification of work	Estimated or approximate direct cost in lakhs of rupees	Irrigable area in acres	Districts benefited	Principal crops that will be produced
Madras	Canary river and project ... Productive	570	473 000	Janjire	Rice
	Kistna river and project ... Do	800	38 000	Kistna and Guntur	
	Godavari river and project ... Do	109	118 200	Godavari	
	Yelgudi river and project ... Do	28	61 000	Kurnool	
	12 smaller schemes ... Mainly protective etc.	944	3 20 000	Kurnool, Nellore, Anantapur and others	
Bombay	Gokak canal extension project ... Productive	182	132 000	Bolgaon, Julapur and the Native States of Kollapur, Mulhol, Jankhind, Sangli and Kurandwad	Wheat, bajri, jowari and oil seeds.
	Mutha Right Bank canal expansion ... Productive	175	840 000	Poona	Sugarcane, groundnut, bajri, jowari, wheat, rice, gram etc.
	Right Bank canal from the Minor tail water of the Boma bay Hydro Electric scheme ... Productive	27	13 500	Thana and Kolaba	Sugarcane, groundnut, bajri, jowari, wheat, rice, gram etc.
Sind	Rohri canal, Sukkur Barrage and widening East ern Nara supply channel ... Productive	782	2 824 000	The whole Left Bank Div. on command of three districts: Rawalpindi, Hyderabad and Thar and Parkar	Cotton, wheat and rice
Sind	Sultanwali Begari canal ... Do	16	1 77 000	Sukkur and Upper Sind Frontier	Bice, jowari, bajri, wheat and oil seeds
	Damodar canal ... Do	89	1 20 000	Burdwan	Rice
Bengal	Extension of the Tribeni project ... Productive	10	50 000	Champaian	Do
Bihar and Orissa	Karamnasa project ... Do	7	30 100	Shahabad	Do
United Provinces	Bolan canal ... Do	15	30 500	Khatwarh, Pargana Allahabad district	Rice and wheat

* Sanctioned by Secretary of State in February 1913

Projects under Investigation—cont'd

Province	Name and probable classification of work	Estimated or approximate cost in lakhs of rupees	Irrigable area in acres	Districts benefited	Principal crops that will be produced
United Provinces and Punjab	Sarda-Ganges, Juma and feeders projects	046	1 524,000	(In the United Provinces— Bamper State, Pilibhit, Shahjahanpur, Hardoi, Bareilly, Moradabad, Budaun, Saharanpur, Meerut, Aligarh, Meerut, Bulandshahr, Aligarh, Mathura, Agra, Etah, Mainpuri, Farukhabad, Sitapur, Cawnpore, Fatehpore and Allahabad (In the Punjab— Gurgaon, Karnal, Delhi, Rohtak, Hissar, Bahawalpur, Multan, Faisalabad, Rawalpindi, Sialkot, Lahore, Ferozepur, Lyallpur, Montgomery, Muzaffargarh, Hyderabad, Sukkur, Khairpur, Mirpurkhas, Tandojam, Thatta, Karachi, Baluchistan)	All the principal crops grown in the United Provinces.
United Provinces	Sarda Kicha Feeder and Sarda canal for Outh	330	745 300	Pilibhit, Jhind States	Do
Punjab	Sutlej Valley project	873	8 000 000	Lahore, Ferozepur, Lyallpur, Montgomery, Muzaffargarh, Hyderabad, Sukkur, Khairpur, Mirpurkhas, Tandojam, Thatta, Karachi, Baluchistan	Wheat, gram, jowar and cotton.
Burma	Remodelling the Kunda canal	15	85 000	Kyaukse	Elae
Central Provinces	Pengodi Nalla tank project	16	33 000	Rhandara	Do
	Dena Nadi Tank project	14 to 25	45 289	Ganda	Do
	Anambar reservoir project	32	80 000	Localia	Wheat and barley
	Toral reservoir project	18	44 000	Do	Wheat, barley and jowar
Baluchistan	Gamboli reservoir project	60	218 000	Sibi	Wheat and barley
	Zinob project	63	258 964	Zinob	jowar, wheat, barley and wheat and barley
	Sardore reservoir project	16	Suppl. large n.t. to Khush dilkan	Quetta-Peshwa	wheat and barley
	Total	4,350 to 4 657	9 441 424 to 10,220 124		

Posts and Telegraphs

POST OFFICE.

The control of the Posts and Telegraphs of India is vested in an officer designated Director-General of Posts and Telegraphs who works in subordination to the Government of India in the Department of Commerce and Industry. The superior staff of the Direction, in addition to the Director-General himself consists on the postal side of two Deputy Directors-General (who are officers of the rank of Postmaster-General) four Assistant Directors-General (whose status is similar to that of Deputy Postmasters-General) and two Personal Assistants (who are selected from the staff of Superintendents).

For postal purposes, the Indian Empire is divided into eight circles as shown below, each in charge of a Postmaster-General—Bengal and Assam, Bihar and Orissa, Bombay Burma, Central Madras, Punjab and North West Frontier and United Provinces. The Central Circle comprises roughly the Central Provinces and the Central India and Rajputana Agencies.

The Postmasters-General are responsible to the Director-General for the whole of the postal arrangements in their respective circles with the exception of those connected with the conveyance of mails by railways and inland steamers which are entrusted to four officers bearing the designation of Inspector-General of Railway Mail Service and Boring. All the Postmasters-General are provided with Personal Assistants while those in charge of the largest circles are also assisted by Deputy Postmasters-General. The eight Postal Circles and the jurisdictions of the four Inspector-Generals are divided into Divisions each in charge of a Superintendent and each Superintendent is assisted by a certain number of officials styled Inspectors or Assistant Superintendents.

Generally there is a head Post Office at the head-quarters of each revenue district and other post offices in the same district are usually subordinate to the head office for purposes of accounts. The Postmasters of the Calcutta, Bombay and Madras General Post Offices and of the larger of the other head post offices are directly under the Postmaster-General and the least of them exercises the same powers as a Superintendent of Post Offices in respect of inspection, appointments, leave and pension.

The Presidency Postmasters, indeed have one or more Superintendents subordinate to them. When the duties of the Postmaster of a head office become so onerous that he is unable to perform them fully himself, a Deputy Postmaster is appointed to relieve him of some of them and if still further relief is required, one or more Assistant Postmasters are employed. The more important of the offices subordinate to the head office are designated sub-offices and are usually established only in towns of some importance. Sub-offices transact all classes of postal business with the public submit accounts to the head offices to which they are subordinate incorporating therein the accounts of their branch offices and frequently have direct dealings with Government local sub-treasuries. The officer in charge of such an office works either single handed or with the assistance of one or more clerks according to the amount of business.

Branch offices are small offices with limited functions ordinarily intended for villages and are placed in charge either of departmental officers on small pay or of extraneous agents such as school masters, shopkeepers, land holders or cultivators who perform their postal duties in return for a small remuneration.

The audit work of the Post Office is entrusted to the Accountant-General Post Office and Telegraphs who is an officer of the Finance Department of the Government of India and is not subordinate to the Director-General. The Accountant-General is assisted by Deputy Accountants-General all but one of whom with the necessary staff of clerks perform at separate headquarters the actual audit work of a certain number of postal circles.

In accordance with an arrangement which has been in force since 1883 a large number of sub-post offices and a few head offices perform telegraph work in addition to their postal work and are known by the name of combined offices. The policy is to increase telegraph facilities everywhere and especially in towns by opening a number of cheap telegraph offices working under the control of the Post Office. The telegraph expenditure on account of these combined offices is borne by the Telegraph Department to which the whole of their telegraph revenue is also credited.

Inland Tariff is as follows —

Letters	When the postage is prepaid	When the postage is wholly unpaid	When the postage is insufficiently prepaid
Not exceeding 1 tola	Anna.		
Exceeding 1 tola but not exceeding 10 tolas	1	Double the prepaid rate (chargeable on delivery)	Double the deficit (chargeable on delivery)
Every additional 10 tolas or part of that weight	1		
Book and pattern packets			
Every 10 tolas or part of that weight	1		

Post Office Tariffs.

135

Postcards.

Single
Reply

$\frac{1}{2}$ anna.
 $\frac{1}{2}$

To other countries,
colonies or places

2½ annas for the first ounce and 1½ annas for every additional ounce or part of that weight

(The postage on cards of private manufacture must be prepaid in full)

Parcels (prepayment compulsory)

Postcards Single
Reply

1 anna.
2 annas.

Every 40 tolas or part of that weight up to 440 tolas 0 2

Printed Papers— $\frac{1}{2}$ anna for every 2 ounces or part of that weight

Exceeding 440 tolas but not exceeding 480 tolas 3 0

Business Papers— $\frac{1}{2}$ anna for every 2 ounces or part of that weight subject to a minimum charge of 2½ annas for each packet

Every additional 40 tolas or part of that weight up to 800 tolas 0 4

Samples— $\frac{1}{2}$ anna for every 2 ounces or part of that weight subject to a minimum charge of 1 anna for each packet

Registration fee

(The rates shown above are those chargeable when the postage is prepaid)

For each letter postcard book or pattern packet or parcel to be registered 0 2

Ordinary Money Order fees

Parcels—(Prepayment compulsory). The rates vary with the countries to which they are addressed. The rates to the United Kingdom are—

On any sum not exceeding Rs 5 0 1

On any sum exceeding Rs 5 but not exceeding Rs 10 0 2

On any sum exceeding Rs 10 but not exceeding Rs 15 0 3

On any sum exceeding Rs 15 but not exceeding Rs 25 0 4

On any sum exceeding Rs 25 up to Rs 600 0 4

for each complete sum of Rs 25 and 4 annas for the remainder provided that if the remainder does not exceed Rs 5 the charge for it shall be only 1 anna. If it does not exceed Rs 10 the charge for it shall be only 2 annas and if it does not exceed Rs 15 the charge for it shall be only 3 annas

	Fia	Gibral	Over
	tar	land	
	Rs a p	Rs a p	
Not over 5 lbs	0 12 0	1 8 0	
"	1 8 0	2 4 0	
11	2 4 0	3 0 0	

Registration fee—2 annas for each letter postcard or packet

Money Orders.—To countries on which money orders have to be drawn in rupee currency, the rates of Commission are the same as in the case of inland money orders

To countries on which money orders have to be drawn in sterling, the rates are as follows —

Telegraphic money order fees.—The same as the fees for ordinary money orders plus a telegraph charge calculated at the rates for inland telegrams for the actual number of words used in the telegram advising the remittance according as the telegram is to be sent as an Express or as an Ordinary message

	Annas.
Not exceeding 11	3
Exceeding 11 but not exceeding 12	5
12	8
13	10
14	12
15	12

for each complete sum of Rs 25 and 4 annas for the remainder provided that if the remainder does not exceed Rs 5 the charge for it shall be 1 anna, if it does not exceed Rs 10 the charge for it shall be 2 annas and if it does not exceed Rs 15 the charge for it shall be 3 annas

Value-payable fees.—These are calculated on the amount specified for remittance to the sender and are the same as the fees for ordinary money orders

Insurance fees.—For every Rs 50 of insured value 1 anna

Acknowledgment fee.—For each registered article 1 anna

Ceylon and Portuguese India are regarded as inland for the purpose of the tariff given above except with regard to insurance fees

The Foreign Tariff (which as noted above is not applicable to Ceylon and Portuguese India, except as regards insurance fees) is as follows —

Insurance fees—

To countries other than those named below 3 annas for every £5

To Ceylon and Portuguese India 2 annas per every Rs. 100

To Mauritius the Seychelles Zanzibar and the British East Africa, Uganda, and Somaliland Protectorates 4 annas per every Rs. 100

Letters
To the United Kingdom, other British Possessions and Egypt, including the Sudan } One anna for each ounce or part of that weight.

Acknowledgment fee.—2 annas for each registered article.

Growth of the Post Office.—At the end of 1894-95 the total number of Post Offices was 10,714 and the total length of mail lines 120,171 miles. For the 31st March 1915 the corresponding figures were 19,158 and 159,073. During the year 1894-95 the total number of letters, postcards, newspapers and packets given out for delivery was about 392 millions, while for the year 1914-15 the total number of unregistered articles of the same classes given out for delivery plus the issue number of registered letters and packets posted amounted to over 1,040 millions. The number of parcel mail articles given out for delivery in the former year was about 2½ millions, as compared with over 12½ millions of such articles posted during the latter year. The total number and value of money orders issued increased from 9,876,937 and Rs. 20,58,10,974 in 1894-95 to 30,352,382 and Rs. 56,07,00,416 respectively in 1914-15. During the former year the number of articles insured for transmission by post was 290,576 with an aggregate declared value of Rs. 8,28,62,600 and the corresponding figures for 1910-11 were 1,199,438 and Rs. 96,88,78,925. As the result, however, mainly of the introduc-

tion in 1911-12 of the rule under which inland articles containing currency notes or postbills thereof must be insured, the figures for 1914-15 stand at 2,969,968 and Rs. 74,30,55,762. The number of accounts open on the books of the Post Office Savings Bank grew from 811,947 on the 31st March 1895 to 1,644,074 at the end of 1914-15 with an increase from Rs. 8,40,17,927 to Rs. 14,89,26,323 in the total amount standing at the credit of depositors. The total staff of the department on the 31st March 1915 numbered 95,433. The net financial result of the working of the Post Office for the year 1914-15 was a surplus of Rs. 24,66,705.

This account of the activities of the Post Office would not be complete if it were not mentioned that on the 31st March 1915 there were 25,348 active Postal Life Insurance Policies with an aggregate assurance of Rs. 3,50,48,952 and that during the year 1914-15 it disbursed a sum of Rs. 31,65,381 to Native Military Pensioners collected, at its own expense, a sum of Rs. 7,91,881 on account of customs duty on parcels and letters from abroad and sold 1,812 lb. of quinine to the public.

TELEGRAPH DEPARTMENT

Telegraphs.—Up to 1912 the telegraph system in India was administered as a separate Department by an officer designated Director General of Telegraphs who worked directly under the Government of India in the Department of Commerce and Industry. In that year it was decided to vest the control of Posts and Telegraphs in a single officer, as an experimental measure with a view to the eventual amalgamation of the two Departments.

In pursuance of this policy an experimental amalgamation of the two services was introduced in the Bombay and Central Circles from the 1st July 1912. The fundamental principle of this scheme which follows closely the system in force in the United Kingdom and several other European countries is that the traffic and engineering work of the Telegraph Department should be separated, the former branch of work in each Circle being transferred to the Postmaster-General who is assisted by a Deputy Postmaster-General and a suitable number of attached officers while the engineering branch is controlled by a Director of Telegraphs in charge of the two Circles. Subordinate to this officer there are several Divisional Superintendents who are assisted by a number of attached officers.

In 1914 the complete amalgamation of the two Departments was sanctioned by the Secretary of State and introduced from 1st April. The superior staff of the direction in addition to the Director-General himself consist on the Engineering side of a Chief Engineer, Telegraphs, who is Assistant and a Personal Assistant to the Director-General. For traffic work there is a Deputy Director-General with an Assistant and an Assistant Director-General. In the Circles the scheme which has been introduced follows closely on the lines of the experimental one referred to above. For telegraph engineering purposes India is divided up into three Circles each in charge of a Director of Telegraphs. For Burma special arrangements were con-

sidered necessary and the engineering work is in charge of the Postmaster-General, Burma Circle, who is a Telegraph officer specially selected for the purpose. These four Circles are divided into twenty divisions each of which is in charge of a Superintendent of Telegraph Engineering.

The telegraph traffic work is now under the control of the Postmaster-General each of whom is assisted by a Deputy Postmaster-General with a suitable staff of attached officers.

The audit work of the Telegraph Departments is, like that of the Post Office, entrusted to the Accountant General, Posts and Telegraphs, assisted by a staff of Deputy and Assistant Accountants-General.

Inland Tariff.—The tariff for inland telegrams is as follows:—

	Private and State	Ex press	Ordinary	
	Rs.	a.	Rs. a.	
Minimum charge	1	0	0	6
Each additional word over 12	0	2	0	3
Additional charges				Added charge for
Minimum for reply-paid telegram				
Acknowledgment of receipt				
Multiple telegrams, each 100 words or less				
Collation	One	quarter		of telegrams.
		charge for		Rs.
For acceptance of an Express telegram during the hours when an office is closed.	If both the offices of origin and destination are closed			2
	If only one of the offices is closed			1

Signalling by flag or semaphore to or from ships—per telegram	8 annas
Boat hire	Amount actually necessary
Copies of telegrams each 100 words or less	4 annas

	Press	Rx press Rs. a.	Ordinary Rs. a.	Address free
Minimum charge		1 0	0 8	
Each additional 6 words over 48		0 2	0 1	
(Ceylon is not regarded as Inland but Portuguese India is)				

Foreign Tariff.—The charges for foreign telegrams vary with the countries to which they are addressed. The rates per word for private and public telegrams to all countries in Europe except Russia and Turkey are as follow —

	Private Rs. a.	State Rs. a.
In Turkey	1 6	
India	1 4	0 12
Malta	1 4	0 10

Telegraph Traffic.—At the end of 1904-05 there were 44,648 miles of line and 128,526 miles of wire and cable as compared with 44,400 and 3,30,033 miles respectively on 1st March 1915. The number of departmental telegraph offices was respectively 253 and 209 while the number of telegraph

offices worked by the Post Office rose from 1,109 to 3,199. The increase in the number of paid telegrams dealt with is shown by the following figures —

		1904-05	1914-15
Inland	Private	2,205,563	13,034,815
	State	585,571	1,631,980
	Press	26,202	232,774
Foreign	Private	564,202	1,214,500
	State	5,804	85,686
	Press	3,094	2,159
Total		4,391,236	16,190,596

Wireless.—The total number of wireless telegraph stations open for traffic at the end of 1914-15 was seventeen, viz., Port Blair, Hangoon, Diamond Island, Table Island, Victoria Point, Madras, Bombay, Sandheads, Calcutta, Karachi, Delhi, Simla, Allahabad, Lahore, Nagpur, Peshawar, Quetta, and Secunderabad. The total number of messages of all kinds despatched by the ten coast stations during the year was 65,538.

Telephones.—On the 31st December 1914 the number of telephone exchanges established by the department was 175, the total number of connections being 5,786 and there were also 1880 offices on non-exchange circuits. The number of telephone exchanges established by Telephone Companies was 11 with 9,710 connections. The outturn from the workshop during 1914-15 represented a total value of Rs. 12,77,000. At the end of the year the total staff of the department numbered 10,414. The total capital expenditure of the Department up to the close of 1914-15 amounted to Rs. 12,52,48,762. The net revenue for the year was Rs. 32,09,463.

In previous issues of the Indian Year Book (1914-15) a general survey of the economic conditions governing the trade of India was given. These conditions are briefly that India is still an agricultural country, therefore the principal exports are foodstuffs and raw materials and the imports are manufactured articles. At the same time India has every year heavy charges to meet in London approximately £18 millions, so that the balance of trade must be in her favour. In the last official year these conditions were overshadowed entirely by the disturbance set up by the war. It is true that only in a certain very limited sense did the war come directly home to the country. Save for the few weeks when the German cruiser Emden was raiding shipping in the Bay of Bengal and the approaches to Ceylon and the few minutes when she threw shells into Madras, the clash of arms was distant. But India is now closely intertwined commercially with the world. The great bulk of the import trade is still done with the United Kingdom and the British Empire, but the larger portion of the export trade is with the continent of Europe and Germany in particular has been a big buyer of Indian produce as well as an increasing competitor in the import trade.

The influence of the war on Indian trade is studied in detail in the review of the trade of India by the Director-General of Statistics Mr G. Findlay Shirras from which the facts given below are drawn. The trade history of the year divides itself into two distinct parts. There was the pre-war period, from March to July, and the post-war period from August to March. Trade during the pre-war period

was on the whole prosperous, the monsoon had been good, the agricultural outlook was satisfactory, and though there were one or two depressing factors like the overstocking of pigmeat, a good year's trade was looked upon as a certainty. The first shock of war was disastrous and gave rise to the gloomiest anticipations regarding two main staples, cotton and jute in which the Continent has always been a heavy buyer. Government were implored to take steps to finance a big carry-over to keep holders and growers from ruin. Government however acted cautiously and whilst under taking to keep the Presidency Banks well supplied with funds in order that they might accommodate trade wisely declined to assume the responsibility for bolstering up any particular branch thereof. Afterwards the trade adapted itself to war conditions and a certain equilibrium was set up. Nevertheless the effect of the war on trade was severe. The falling off in the value of exports in 1915 was nearly as great as the entire export of raw cotton and jute in the previous year. Exports of merchandise in the eight months August to March, fell off as compared with the corresponding months of the previous year as follows—From Rs 166 crores (£110 millions) to Rs 95 crores (£63 millions) or by Rs 71 crores (£47 millions) or 43 per cent. Imports fell off in the same period from Rs 127 crores (£85 millions) to Rs 83 crores (£55 millions) or 34 per cent. Both in imports and exports the lowest figures were in September. The total for October showed approximately the same figures as for August and thereafter there was some recovery.

THE TRADE OF THE YEAR.

The total as a home trade of British India in 1914-15 amounted to Rs 354 crores or £236 millions as against Rs 491 crores or £327 millions in 1913-14. Imports were valued at Rs 167 crores of £111 millions and exports at Rs 187 crores of £125 millions.

The total imports of private merchandise and Government stores (excluding treasure) in 1914-15 were Rs 146 crores or £97 millions. The total exports of Indian produce were Rs 178 crores of £118 millions. The re-exports

of foreign goods were about Rs 4 crores or nearly 2½ millions. The total treasure imported was nearly Rs 22 crores or £15 millions—a decrease as against Rs 33 crores in 1911-12. Rs 62 crores in 1912-13 and Rs 49 crores in 1913-14. The imports in 1914-15 were much below those of the preceding two prosperous years and one has to go back to the year 1911-12 for a similar total value, just as it is necessary in the case of exports to go back to the year 1909-10.

From the table below it will be seen that the total trade of 1914-15 in private merchandise decreased 38 per cent as against that of 1913-14—25 per cent in imports, 27 per cent in exports and 12 per cent in re-exports. The trade in treasure declined 43 per cent (54 per cent in exports and 41 per cent in imports).

	1913-14 Rs (lakhs)	1914-15 Rs (lakhs)	Decrease as compared with 1913-14	Per cent
MERCHANDISE				
Imports	1,83.25	1,37.93	45.32	25
Exports	2,44.20	1,77.48	66.72	27
Re-exports	4.69	4.71	0.02	12
Total	4,32.15	3,10.12	1,22.03	28
TREASURE				
Imports	46.62	21.77	24.85	53
Exports	7.05	3.30	3.75	53
Total	53.67	25.07	28.60	53

War influence.—In order to gauge as far as possible the dislocation of trade owing to the war, it is convenient to divide the year under review and the preceding year into two periods (1) April to July and (2) August to March. The loss from August to March which may be assumed to be largely, if not entirely due to the war was Rs 44 crores or £29 millions in imports, Rs 704 crores or £47 millions in exports and Rs 62 lakhs or £400 000 in re-exports. The total decrease in the war period as compared with the corresponding period of the previous year is Rs 115 crores or £77 millions. This is equivalent to a decrease of 39 per cent.

	1913-14		1914-15		Increase (+) or Decrease (—)	
	April to July	August to March	April to July	August to March	April to July	August to March
	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)
Imports	401	1 27 20	34 77	83 16	-1 28	-14 64
Exports	74 12	1 00 08	82 01	0 47	+3 80	-70 61
Re-exports	1 4	3 14	1 59	2 12	+5	-62

To sum up it will be seen that in the pre-war period of four months April to July imports declined by Rs 11 crores while in the war period there was a decline of over Rs 44 crores. Articles of food, drink and tobacco increased by Rs 30 lakhs in the pre-war period, but in the war period this class showed a heavy decline of Rs 47 lakhs of which sugar accounted for Rs 49 lakhs. Imports of raw materials also advanced by Rs 24 lakhs in the pre-war period, but declined by Rs 148 lakhs in the war period. Manufactured articles imported declined by Rs 2 crores in the pre-war period but during the war period this class declined by over Rs 36 crores. Textiles mainly cotton

goods accounted for about a half on the whole decrease metals over Rs 8 crores and hardware Rs 2 crores. The total exports showed an increase of about Rs 31 crores in the first four months of the official year due mainly to heavy shipments of cotton raw to some extent set off by restricted exports of grain, pulse and flour. During the war period the exports declined by over Rs 70 crores textiles mainly cotton and jute raw accounting for half of the decrease grain pulse and flour Rs 8 crores and seeds Rs 11 crores. Manufactured articles exported declined by Rs 9 crores of which jute, gunny bags and cloth and other textiles accounted for Rs 7½ crores.

THE IMPORT TRADE.

The value of the import trade in each of the classes under which articles are grouped in the accounts was as shown below. The total value of the imports decreased in all classes. The decrease was marked under class I with regard to sugar 18 D 4 and above (Rs 449 lakhs), provisions (Rs 37 lakhs) and liquors (Rs 33 lakhs) the only noticeable increase being under grain pulse and flour and molasses (Rs 10 lakhs each) and tea (Rs 4 lakhs). The decrease of Rs 448 lakhs under sugar 10 D 5 and above is made up of Rs 692 lakhs or 48.7 per cent representing a loss on account of smaller quantity set off by an increase of Rs 231 lakhs or 28 per cent on account of a rise in prices. The prices of molasses rose in sympathy with that of sugar. In class II important decreases were noticeable under precious stones and pearls unset (Rs 87 lakhs), coal, coke and patent fuel (Rs 28 lakhs) and silk raw (Rs 18 lakhs), while kerosene oil and raw cotton improved to the extent of Rs 48 lakhs and Rs 2 lakhs respectively. Coal from Natal, Japan and Australia was restricted and prices rose slightly. Class III represents over 77 per cent of the total im-

port trade and accounts for heavy decreases under all the principal heads viz cotton goods (Rs 18 99 lakhs) iron and steel (Rs 6 54 lakhs) other metals (Rs 2 07 lakhs) hardware cutlery etc (Rs 2 15 lakhs) machinery (Rs 1 50 lakhs) woollens (Rs 1 97 lakhs) glass and earthenware (Rs 1 18 lakhs) apparel etc (Rs 80 lakhs) haberdashery (Rs 75 lakhs) silk goods (Rs 1 16 lakhs) dyes and colours (Rs 76 lakhs) and toys (Rs 21 lakhs). The only noticeable increases are under matches (Rs 23 lakhs) soap (Rs 8 lakhs) railway plant and rolling stock (Rs 3 lakhs) parts of ships (Rs 7 lakhs), rubber (Rs 4 lakhs) and chemicals and cement (about a lakh each). The trade in cotton goods was restricted owing partly to the war and the absence of tonnage and partly to the overtrading of the successively preceding three years as well as the diminished purchasing power of the people. The prices of manufactured cotton were however maintained on the level of the previous year while those of woollens and silk goods rose slightly. The effect of the war on iron and steel prices was somewhat irregular and the declared unit values during the

year were generally on a lower level as against those of the previous year

	1914-15 Rs. (lakhs)	Relative Share per cent	Decrease as compared with 1913-14 Rs. (lakhs)	Per cent
I. Food Drink and Tobacco	19.58	14.2	5.08	20.6
II. Raw Material	9.32	6.8	1.24	11.7
III. Manufactured Articles	106.67	77.3	38.49	26.5
IV. Miscellaneous	2.36	1.7	.51	1.9
Total	137.93	100	4.32	24.7

THE EXPORT TRADE.

The total exports of Indian merchandise declined 27 per cent. as against 25 per cent. in imports. If the articles are classified into the four main groups as they are in the trade accounts it will be seen from the figures below that the decrease is contributed more or less by all classes. The contraction in Class I was due to a decline in the exports of grain, pulse and flour amounting to Rs 18.10 lakhs of which rice accounted for Rs 9.45 lakhs, wheat and flour Rs 5.15 lakhs, barley Rs 1.1 lakhs and gram Rs 2.6 lakhs. The exportation of wheat or wheat flour was prohibited with effect from the 29th December 1914 except to the United Kingdom or British Possessions, the total quantity to be thus exported up to the 31st March being limited to 75,000 tons. The trade in tea and coffee was satisfactory and improved by Rs 55 lakhs and Rs 12 lakhs respectively. The curtailment of the export trade was most marked in Class II which represents 45 per cent. of the total. Almost all the articles showed a contraction. Textile materials accounted for a decrease of Rs 25.72 lakhs, namely Rs 17.82 lakhs under raw jute and Rs 7.5 lakhs under raw cotton. The high prices realised for jute in 1913-14 were not maintained. With large sowings in 1914-15 accompanied by favourable agricultural conditions, a record crop was harvested resulting in an appreciable fall in prices. Owing to the disturbed condition of the market due to the lack of tonnage, buyers were unable to take delivery under existing contracts, and the millowners were not ready to buy largely except at very low prices. During the last quarter of the year under review the demand for jute rose rapidly on account of the demand for bags for trade and military purposes. The position of the cotton market was also far from satisfactory when the war broke out, there being a glut in the piece-goods market which was accentuated by the war. With the

shutting off of large foreign markets and with a promising good harvest there was a resultant slump in the price of raw cotton. A decline in the price of raw jute, cotton etc. restricted the purchasing power of the people and their demand for imported goods such as cotton piece-goods. India is one of if not the largest consumer of piece-goods in the world. Oilseeds accounted for a decrease of Rs 11.02 lakhs of which Rs 2.6 lakhs were under rapeseed, Rs 2.61 lakhs under groundnuts, Rs 1.63 lakhs under sesamum, Rs 1.43 lakhs under flaxseed, Rs 84 lakhs under castor and Rs 62 lakhs under cotton seed. The trade in seeds is mainly conducted with the continent of Europe and the effect of the war was directly felt. Similarly raw hides and skins fell in value by Rs 8.91 lakhs, manganese ore by Rs 46 lakhs, lac by Rs 36 lakhs, bones for manure by Rs 50 lakhs and coal by Rs 16 lakhs. The only increase noticeable in this class are under rubber raw (Rs 10 lakhs) and coconut oil Rs 14 lakhs. In Class III the total decline amounted to Rs 8.01 lakhs of which cotton yarn and goods were responsible for Rs 4.11 lakhs, gunny cloth for Rs 2.49 lakhs, opium for Rs 1.09 lakhs, oilcakes and cur Rs 12 lakhs each and tanned skins Rs 31 lakhs. Tanned hides on the other hand improved by Rs 82 lakhs, indigo by Rs 69 lakhs, paraffin wax by Rs 10 lakhs and saltpetre by Rs 12 lakhs. Of these articles indigo showed a marked rise in price in the year due to a stronger demand for it in the absence of the dye in the world's market which had hitherto been supplied by Germany the declared import value per cwt. in the case of the United Kingdom being e.g., in December 1913 Rs 40-3s as against £11-9s in December 1913. Dr seed hides also improved in price although the price of skins, raw and dressed, slightly fell as compared with prices of the previous year. Opium and raw rubber fell

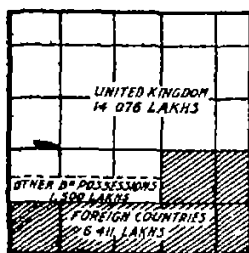
Distribution of trade of British India between British Possessions and Foreign Countries in 1914-15, as compared with the year 1913-14.

It will be seen India imports chiefly from the British Empire and exports to countries outside the Empire.

1913-14.

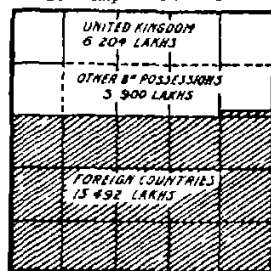
Total Imports 21,987 lakhs

84 per cent
United Kingdom
7 per cent
Other British Possessions
29 per cent
Foreign Countries

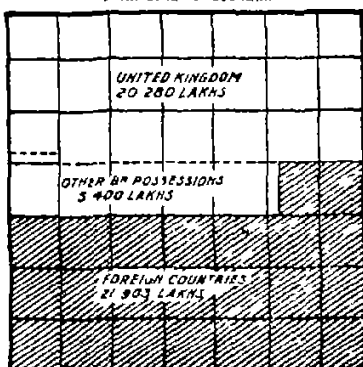


Total Exports 20,508 lakhs

24 per cent
United Kingdom
15 per cent
Other British Possessions
61 per cent
Foreign Countries



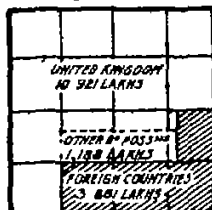
Total Trade 42,495 lakhs



United Kingdom	43 per cent
Other British Possessions	13 per cent
Foreign Countries	46 per cent

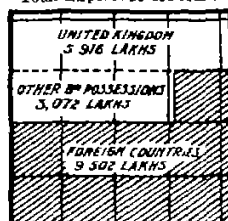
1914-15

Total Imports 15,970 lakhs.



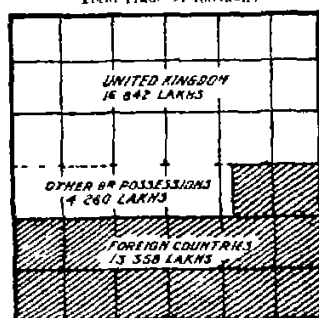
United Kingdom	68 per cent
Other British Possessions	8 per cent
Foreign countries	24 per cent

Total Exports 18,490 lakhs



United Kingdom	32 per cent
Other British Possessions	17 per cent
Foreign countries	51 per cent

Total Trade 34,480 lakhs



United Kingdom	49 per cent
Other British Possessions	12 per cent
Foreign Countries	39 per cent

Note.—Total trade includes private merchandise and treasure on private accounts.
The dotted lines indicate the share of the United Kingdom.

In price and the price of coffee was lower than in 1913-14.

	1914-15 Rs (lakhs)	Relative share per cent	Decrease as compared with 1913-14 Rs (lakhs)	Per cent
I Food, Drink and Tobacco	48.97	27.6	15.71	24.4
II Raw Materials	80.0	46.1	42.99	34.6
III Manufactured Articles	46.8	26.3	8.01	14.7
IV Miscellaneous	1.86	1	5.5	22.7
Total	177.48	100	68.72	27.3

Re-exports.—The re-export trade which is comparatively unimportant with a total value of Rs 41 crores declined although not in the same proportion as the import and export trade. The trade is carried on chiefly through the ports of Bombay and Karachi which continue to act as receiving and distributing centres between Europe on the one hand and the Persian Gulf and the East Coast of Africa on the other. The articles of trade are mostly manufactured goods, the most important class being cotton goods of which the value declined from Rs 158 lakhs to Rs 87 lakhs on account of smaller exports to Aden, Arabia, Bahr in Islands, Persia and Ceylon. This decline was partly made good by sugar which accounted for an increase of Rs 40 lakhs sent to the United Kingdom, Persia and East African Protectorate. Raw wool imported over the land frontier maintained its level with a slightly higher range of prices.

Calculated Values.—The value of part of the trade in the year under review was inflated by increased prices. In order to examine therefore, re-export with previous trade it is necessary to eliminate the effect of the variation of prices by the method that is universally employed for this problem. It will be sufficient

to show here how the 1914-15 figures appear if calculated at the prices of 1913-14. The calculated values in short represent what the value of the trade would have been had prices remained the same as in 1913-14. The difference therefore between these calculated values of the trade of 1914-15 and the values recorded in 1913-14 represents the change in the volume of trade in the year under review. The difference between the calculated values and the actual values recorded in 1914-15 shows the change in prices. Under imports the decline of Rs 45.32 lakhs is made up of a decline of Rs 40.02 lakhs or 20 per cent due to a decrease in the volume of trade set off by an increase of Rs 70 lakhs or 5 per cent due to a rise in prices. Similarly in exports the fall of Rs 66.21 lakhs due to a decrease of Rs 49.84 lakhs or 20 per cent in the volume of trade and of Rs 17.47 lakhs or 9 per cent in prices. Taking the imports and exports together the total recorded decrease is Rs 112.04 lakhs of which Rs 90.87 lakhs or 22 per cent was due to the smaller volume of trade and Rs 21.17 lakhs or 5 per cent to lower prices. In short prices were 5 per cent lower than those of 1913-14 and the volume of imports and exports fell by 22 per cent.

Balance of Trade.—The excess of exports over imports of merchandise and treasure in 1914-15 was Rs 50.72 lakhs (£11.9 millions) including Government transactions and Rs 25.80 lakhs (£10.8 millions) excluding Government transactions. The average for the past three years is Rs 23.48 lakhs (£15.8 millions) and Rs 34.07 lakhs (£22.7 millions) respectively. The following tables show the net figures of merchandise and treasure excluding Government transactions for the years 1910-11 to 1914-15—

	Net exports of Merchandise Rs (lakhs)	Net imports of Treasure Rs (lakhs)	Total Net export Rs (lakhs)
1910-11	80.53	92.64	47.99
1911-12	80.28	43.06	40.22
1912-13	83.09	44.15	40.94
1913-14	66.03	29.16	36.01
1914-15	43.86	18.46	25.20

Prices.—Before the outbreak of war the prices of cereals, pulses and oilseeds except linseed were on the whole above the level of the previous year while raw cotton and raw jute were below that level. After the outbreak of war the prices of country produce were unfortunately subject to great changes. The curtailment and in some cases the complete stoppage of demand in European markets led to a fall in Indian staples such as rice, oilseeds, raw jute and raw cotton. The average price of rice at the end of March 1915 was 12 per cent lower than in the period just previous to the outbreak of war. Jawar, bajra and maize were also cheaper on account of excellent harvests. Raw jute had fallen from the high level of the previous year to a price 83 per cent below the level at the outbreak of war. In the same period raw cotton fell 82 per cent, sesamum 24 per cent and linseed 13 per cent. With wheat, gram, barley and arhar dal it was otherwise. Wheat rose in February (owing to the rise in world markets and in spite of bumper harvests) to its maximum of 45 per cent above the level prevailing in the last fortnight of July 1914. Imported sugar and imported salt rose more than other articles of import. On 31st March 1915 Java sugar was selling in Calcutta at Rs. 11 12 annas per maund or 74 per cent above the level of July 1914. The rise in imported sugar was due to the diversion of Java and Manilla sugar to the United Kingdom. Liverpool salt (ex-goliah) in the last week of March 1915 was selling in Calcutta

at Rs. 105 per 100 maunds, or 108 per cent above the level of the outbreak of war.

Earnings of Labour.—From an examination of the returns of wages in selected industries it appears that in 1915 there was an increase of two per cent as compared with the corresponding period of 1914. The selected industries were the cotton industry of Bombay, the woollen industry of Calcutta, the jute paper and mining (coal) industries of Bengal, the tea industry of Assam, the rice industry of Rangoon and the brewing industry of the Punjab. It is true that on the outbreak of war there was for a time considerable unemployment in the cotton and in a less degree in the jute trades. As is well known, however, the worker in an Indian factory is usually if not always bound to the mill by ties of affection and returns to his home when necessary, especially before the arrival of the monsoon to prepare the soil. The effects of unemployment are therefore less severe than in western countries. After the first shock of war in August and September, there was considerable activity in the jute industry owing to the demand for bags and other jute manufactures for commercial and military purposes. Employment was good and wages were on a high level in the woollen industry which had large war contracts on hand. The rise in the Bombay cotton industry was 3 per cent, in the jute industry one per cent and in the woollen industry 12 per cent. No rise occurred in the paper, rice or coal industries in the year under review. In the tea industry there was an increase of one per cent.

DIRECTION OF INDIAN TRADE.

In ordinary years considerably more than half the total foreign trade is with Europe and about a quarter with Asia. In 1913-14 the year before the outbreak of war 67 per cent was with Europe, 21 per cent with Asia, 8 per cent with America, 3 per cent with Africa and 1 per cent with Australia and New Zealand. Of the import trade in that year over 80 per cent was earned on with European countries. The export trade however was far more widely distributed. 57 per cent was with Europe, 26 per cent with Asia, 12 per cent with America, chiefly the United States, 3 per cent with Africa and 2 per cent with Australia and New Zealand. In the year under review, 1914-15, of the total trade 64 per cent was with Europe, 22 per cent with Asia, 9 per cent with America, 3 per cent with Africa, and 2 per cent with Australasia. Of the import trade 77 per cent was with the European countries, over 67 per cent being with the United Kingdom. Of the export trade 65 per cent was with the European countries and 26 per cent with Asia. These percentages show only slight variations as compared with 1913-14. Roughly speaking, 40 per cent of the total trade is with the United Kingdom, 10 per cent with other parts of the Empire and the remainder with countries outside the Empire.

Before the outbreak of war the six chief countries from which India drew her imports were the United Kingdom, Germany, Java, Japan, the United States and Austria-Hungary. In 1913-14 the United Kingdom supplied 64 per cent of the total imports, Germany 7 per cent, Java 8 per cent, Japan and the United States of

America nearly 3 per cent each and Austria-Hungary 2 per cent. The six chief destinations of India's exports in the same year were the United Kingdom (24 per cent), Germany (10 per cent), Japan and the United States of America (9 per cent each), France (7 per cent) and Belgium (5 per cent). It will be seen that Germany next to the United Kingdom was India's best customer. Of India's import trade in the year before the war (1913-14) which was valued at £122 millions, Germany supplied goods to the value of nearly £21 millions and took exports to the value of over £17½ millions out of a total export value of £166 millions. In that year the imports from Austria-Hungary amounted to £2·9 millions and exports to £8·7 millions. Belgium also supplied goods to the value of £2·8 millions and received exports valued at £8 millions. The total trade of India with these three countries had a value of over £46 millions or 16 per cent. Trade with France was valued at £15·6 millions. The trade with these countries during 1914-15 was considerably curtailed to the extent of £34·6 millions or 58 per cent. The most remarkable fact however looking back over the trade statistics of the last decade is the rapid progress made by the three countries—Japan, Java and Germany, which is referred to below. The effect of war on trade has naturally been to stop our trade with enemy countries and to curtail it with the allies and neutrals. The total trade is given below. The trade it will be seen with the United Kingdom declined by 21 per cent in imports and by one per cent in exports, with

Japan by 7 per cent in imports and by 31 per cent in exports and with the United States of America by 2 per cent in imports and by 20 per cent in exports

	1914-15			1913-14			Decrease in 1914-15		
	Im ports.	Ex ports includ ing Re-ex ports	Total.	Im ports.	Ex ports includ ing Re-ex ports.	Total	Im ports	Ex ports includ ing Re-ex ports.	Total.
	Rs (lakhs)	Rs (lakhs)	Rs. (lakhs)	Rs (lakhs)	Rs (lakhs)	Rs (lakhs)*	Rs (lakhs)	Rs (lakhs)	Rs (lakhs)
ALLIES -									
United Kingdom	92.94	57.64	150.58	117.58	58.35	175.93	-24.64	-71	-2.35
Belgium	1.83	5.27	6.90	4.26	12.10	16.36	-2.63	-6.83	-9.46
France	1.78	8.84	10.60	2.69	17.2	20.41	-9.3	-8.88	-9.81
Russia	4	1.87	1.91	6	2.47	2.53	-2	-60	-62
Italy	1.52	6.87	8.39	2.20	7.89	10.09	-88	-1.02	-1.70
Japan	4.44	15.66	20.10	4.74	22.09	27.4	-34	-7.03	-7.37
Total	102.34	96.15	198.48	131.77	112.24	252.79	-29.24	-25.07	-54.31
ENEMY COUNTRIES -									
Germany	4.65	10.20	14.85	12.66	26.42	39.08	-8.01	-16.22	-24.23
Austria-Hungary	1.29	4.53	5.82	4.29	10.01	14.30	-3.00	-5.48	-8.46
Turkey	33	1.75	2.08	58	3.04	3.62	-25	-1.29	-1.54
Total	6.27	16.48	22.75	17.53	39.47	57.00	-11.26	-22.99	-34.25
NEUTRALS	28.38	68.96	97.29	34.15	88.19	122.34	-4.82	-19.23	-24.06
GRAND TOTAL Foreign (Sea-borne trade).	137.93	181.59	319.52	183.25	248.88	432.13	-45.32	-87.29	-112.61

Trade with Foreign Countries.

The chief competitor in the import trade was undoubtedly Germany, which for years has made a bold bid for the Indian market. Her exports such as cotton manufactures iron and steel hardware etc. have been serious competitors with British goods of a similar kind, while her imports from India such as raw jute and cotton seeds, hides and rice have been taken in large quantities as the raw material for German industries. Austria-Hungary sent sugar and glassware, and took in return raw jute, cotton, hides and skins. The United States and Japan, especially the latter are seizing the opportu-

nities for developing their trade, brought about by the curtailment of trade on the part of the belligerents.

Japan's trade with India in 1914-15 was valued at Rs. 20.10 lakhs (£13.4 millions). Imports from Japan amounted to Rs. 4.44 lakhs (£3 millions) while the exports to that country were Rs. 15.66 lakhs (£10.4 millions). Twenty years ago the total trade was Rs. 1.87 lakhs, ten years ago Rs. 10.93 lakhs and last year (the year before the outbreak of the war) Rs. 27.47 lakhs or £18 millions. Japan occupies the predominant position in India's trade with foreign countries in Asia. Her share

amounts to 8 per cent of the total import trade and 9 per cent of the total export trade of India. Of the exports nearly 92 per cent in 1914-15 was raw cotton Japan taking 48 per cent of the total raw cotton exported. In regard to imports, it will be noted that in our main lines of the Indian import trade such as cotton hosiery and piecegoods silks, glass and glassware copper matches umbrellas fittings toys etc Japan's position is yearly growing in importance. Japan has studied the Indian market more carefully than the majority of the importing countries, especially in regard to cheap and showy articles for which there is a large demand. The goods are placed on the Indian market in the way which they are required and although frequently of very inferior quality are extremely cheap. Japan has established commercial agencies and possesses the great advantages of a direct line of subsidised steamers and low freights to India. Shortly after the outbreak of war Japan set about increasing several of her exports to India. With the stoppage of imports of matches from Austria, Hungary and the curtailment of these imports from Scandinavia the imports from Japan increased. The imports from August 1914 to March 1915 (i.e., from the outbreak of war)

were 7,165,000 gross as compared with 4,684,000 gross during the corresponding period of the previous year. Another example of the rapidity with which Japan saw a potential market on the outbreak of war was in regard to Pilsener beer. She had studied the market for light table beers and knew how to advertise and to market directly and cheaply. The imports rose from 5,834 gallons to 64,024 gallons. Instances could be multiplied. Notwithstanding the war there were noticeable increases in the year under review in matches cotton grey piecegoods raw silk copper wrought (brassier and sheets), camphor glass bangles bottles funnels and globes, tea chests wheat flour sugar 16 D S and above, cement liquors paper and pasteboard, and chemicals.

Java has succeeded in capturing the sugar import market and like Japan is increasing her share of India's import trade. The year before the war (1913-14) Java's total trade was Rs 12,89 lakhs or £8.5 millions. Ten years ago the trade was only Rs 2,47 lakhs or £1.6 millions and twenty years ago only Rs 33 lakhs or £222,300. The growth in Java trade has been almost entirely in her exports of sugar and in her imports of Indian jute goods opium and rice.

FRONTIER TRADE.

Frontier trade is carried on with adjoining foreign countries across a land frontier of approximately 6,830 miles. The value is comparatively small, being in 1914-15 about 6 per cent of the sea-borne trade. It has increased recently in a very satisfactory way except in 1914-15. The principal imports across the land frontier are rice, oilseeds, provisions (chiefly in the form of ghi and pickled tea), cattle, sheep and goats imported largely from Nepal, horses, ponies and mules chiefly from the Shan States, silk from Siam and Karennee in the eastern frontier of Burma, other timber from the North West Frontier (Tirah), Dir, Swat and Bajaur and Waziristan, raw wool mainly from Afghanistan and Tibet, and fruits and veg. tables chiefly from Afghanistan. The principal exports are cotton manufactures and yarn, mostly of foreign origin, the other exports among which spices, metals, sugar, tea and salt are the most important are on a much smaller scale. The tables below summarise some of the main facts of this trade.

	(In lakhs of rupees.)					
	1913-14			1914-15		
	Exports.	Imports.	Total.	Exports.	Imports.	Total.
N W Frontier—						
Afghanistan	1.52	1.29	2.81	1.36	1.21	2.57
Dir, Swat and Bajaur	.87	.78	1.65	.90	.75	1.65
Central Asia	.18	.1	.30	.15	.9	.24
Punjab	.22	.3	.25	.16	.3	.19
N and N E Frontier—						
Nepal	2.05	4.33	6.38	1.91	3.85	5.76
Tibet	.20	.33	.53	.18	.85	.53
Sikkim	.16	.31	.47	.16	.29	.45
Bhutan	.18	.31	.59	.18	.22	.40
Eastern Frontier—						
Shan States	1.63	2.02	3.65	2.18	1.93	4.11
W China	.58	.29	.85	.53	.19	.72
Siam	.17	.44	.61	.17	.43	.60
Karennee (North Tenasserim)	.5	.35	.61	.3	.24	.27

Trade per head—India's trade per head of population is still low when compared with that of some other countries as will be seen from the following table—

Trade per head of Population in selected Countries. (a)

	Popu- lation in mil- lions	1900	1905	1910	1911	1912	1913	1914	Percent- age decrease per head as against 1913
		Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	
India	315	6 4	8 8	10 11	11 6	12 8	13 3	11 13	—10
Russia	164	16 0	18 6	24 7	24 3	23 4	24 10	17 6	—29
United Kingdom	45	273 12	285 2	335 10	341 10	367 15	380 2	376 0	—3
France	40	135 14	147 10	202 8	214 8	226 0	232 3	147 10	—28
Germany	65	135 12	156 6	198 6	200 10	210 12	230 11	(b)	(b)
Italy	35	56 6	68 4	91 15	95 11	105 10	106 5	87 7	—18
United States	92	90 6	95 14	110 9	119 9	136 10	136 3	131 2	—4
Japan	50	17 7	26 9	28 8	28 8	23 9	39 7	6 9	—8
China	400	2 2	3 13	4 4	4 4	4 18	5 8	4 11	—15

(a) Figures are for the calendar year

(b) Twelve months' average not available

The share of trade per head of population in India is 1 per cent of that of the United Kingdom 7 per cent of France and 9 per cent of the United States of America. In view of the effect of war on trade the decrease per cent per head of population as compared with the previous year is noteworthy. It will be seen from the table above that the decrease in the case of India for the calendar year 1914 is only 10 per cent.

Trade by Provinces.—Bengal has a much larger export and import business than Bombay, the trade of Bombay and Sind being almost equal to that of Bengal as regards imports, but less as regards export. Bengal does most of the trade with Europe, America and Australia while Bombay does the greater part of the trade with Asiatic ports and Africa, since the outbreak of war Bengal has done about half the export trade the share of the other provinces being as follows—Bombay 19 per cent, Madras 12 per cent, Burma 10 per cent, and Sind 9 per cent.

	Import Rs. (lakhs)	Export Rs. (lakhs)	Total Rs. (lakhs)	Share per cent.
Bengal	57 17	74 47	1 31 64	41 2
Bihar and Orissa			5	
Bombay	16 10	49 12	65 22	29 8
Sind	11 59	29 08	31 67	9 9
Madras	12 52	11 61	24 13	10 7
Burma	10 75	16 26	26 81	8 4
Total	1 37 93	1 31 50	3 19 32	100

Trade by Ports.—The trade of the chief ports and important subordinate ports is given. India possesses a very long sea board, but very few harbours, and hence about 98 per cent of the foreign trade passes through the five chief ports, two of which are situated at a considerable dis-

tance from the sea. The volume of the total trade in private merchandise passing through them in 1914-15 declined by 26 per cent.

	1903-04. Rs. (lakhs)	Per cent.	1914-15 Rs. (lakhs)	Per cent.
Calcutta	1,68.59	39	1,27.34	40
Bombay	1,31.99	31	95.19	30
Karachi	42.82	10	41.67	10
Rangoon	02	8	23.27	7
Madras	20.89	5	10.34	5
Tuticorin	6.9	1	5.51	2
Chittagong	24	1	4.29	1
Total	4,10.2	95	3,0.61	95

Inland Trade—The inland trade returns show where the commodities after importation at the port go for consumption and whence the ports draw their goods for export. They are collected from the extent to which the several provinces interchange their commodities, their value in times of war and famine illustrating the movements of foodstuffs. The official estimate of the inland trade for the whole year, both in quantity and value, gives the following figures: Import and export each 1,44,000 tons, valued at Rs. 415 crores (4270 millions) as compared with 1,77,000 tons valued at Rs. 447 crores (4598 millions) in the previous year.

INDIAN FISCAL POLICY

The fiscal system of India may be described as one of free trade with a moderate tariff for revenue purposes. The various steps which led to the imposition of the present tariff are detailed in the history of customs (qv). The tariff is a general one, but with large freights as a compensation for the duty on imports of raw materials, and a tariff for the industrial products of the country to the general benefit. The tariff there is an important exception in the case of the goods of which the bulk come from the United Kingdom, pay only the duty at half per cent. and in order to prevent this small tariff from raising the slightest protection, India has a countervailing duty of three and a half per cent. ad valorem on all cotton goods woven in the Indian mill. The pros and cons of this impost are considered in the article on the Indian Cotton Duties Act (qv). It belongs to the general scheme of Indian fiscal policy which is in favour of a free trade policy, though the cotton duty shifts were cordially

resisted. But with the growth of an appreciation of the immense importance of developing Indian industries there has been a considerable reaction. This has been intensified by the increasing competition of the Continent of Europe in certain classes of manufactured articles like iron goods, textiles, matches, and glassware, and the rise of Japan as an exporter of manufactured goods to India. If a prohibitive tariff is not introduced, it is doubtful if a moderate tariff would be found to protect Indian industries. The feeling of the unofficial community will be found reflected in the debates in the Imperial Legislative Council of which a full summary is given in the *Work of the Legislative Councils* (qv). No opinion is expressed by the Editor of the *Indian Year Book* but the various arguments set out on both sides are set out below. The first is by one who is convinced that free trade is the fiscal policy most suited to Indian conditions, the second by a strong tariff reformer.

INDIA AND FREE TRADE.

It is not infrequently charged against the British advocates of the maintenance of Free Trade for India that they are guilty of hypocritical selfishness and that their real object is to retain the Indian market for themselves. This allegation can only be advanced by controversialists who shut their eyes to facts, and ignore the opposition which Free Traders offer to attempts to introduce a Protective Tariff at home in the interests of British manufacturers. The position adopted by the Free Trader is that the present and ultimate economic good of every country is most effectually secured by giving the people access to the best markets for the satisfaction of their needs. The people of India enjoy this right under Free Trade as do the people of Great Britain if the day should come when Great Britain

resorts to Protection the moral ground for maintaining Free Trade in India will have disappeared, and in the event of the Government of India then proposing to establish a Protective Tariff the British Protectionist Government would have to assent to the proposal or adopt the hypocritical attitude which is now attributed to Free Traders. And it may be said here that if the policy of the Free Trader were to admit British goods into India free of duty, while imposing heavy imposts on merchandise purchased by India from other countries, the epithets now applied to him unjustly would be justifiable and appropriate in his case. Coming to the concrete aspect of the question, there is undoubtedly great force in the contention that if the Tariff Reform party at home secured a majority

in Parliament, their real troubles would at once begin. It is one thing to indulge in vague platform rhetoric over the desirability of taxing the foreigner's goods, and another to frame a Protective Tariff which would not cause serious dislocation of trade and inflict grave injury on large sections of the community. Difficulties would also arise here if the advocates of Protection in this country were given a free hand to deal with import duties. Of the imports of foreign merchandise into India in the official year 1912-13 Rs. 23 crores consisted of food and drink. A further Rs. 12½ crores was made up of Raw material and produce and articles mainly unmanufactured. Manufactured articles amounted to Rs. 183 crores, including large classes of manufactures which India does not produce. Considerably more than half consists of cotton piece-goods and other articles of clothing. The framers of a Protective Tariff would therefore be confronted with the facts in the first place that a large proportion of the imports comprise goods which are not produced in India, and, in the second that unless he taxed the clothing and the food of the masses his Protective Tariff would be an exiguous quantity. Among the food imports, sugar is by far the most important, amounting last year to Rs. 14½ crores. This commodity, because of its cheapness, is largely consumed by the poorer classes. The greater portion of it comes, of course, from Java, where, owing to the modern scientific methods adopted production is less costly and more efficient than in India. The most effective means of meeting the competition of the Java product is by improving the methods in vogue in India, and this fact happily is receiving practical recognition. But the Protectionists' idea is to shut out foreign sugar by taxation, a device which would enhance the price of a popular food and at the same time tend to perpetuate inefficiency in the

indigenous industry. When this subject was fully debated in the Imperial Legislative Council some two years ago Mr. Mallvaya asserted that he would not shrink from imposing a duty of 80 per cent. or even more on imported sugar. It was pointed out, however, by Mr. Gokhale, that in order to give effective protection to the indigenous industry a duty of 80 per cent. would be necessary.

A widespread desire no doubt exists among Indian politicians to impose import duties on cotton cloth. The effect of such a tax would be to raise the cost of the clothing of a population, the overwhelming majority of whom derive their livelihood from cultivating the soil. They have no voice in deciding the policy of the Government and no knowledge of the opinions and speeches of Indian public men. Their best interests are obviously served by enabling them to exchange their surplus produce on the most favourable terms for the manufactured articles which they require for their comfort or for the purposes of their daily avocations. This they can do under Free Trade, and it is the solemn duty of the Government to consider their needs rather than the claims of the wealthy and influential advocates of a Protective Tariff. Great industries have sprung up in India without the adventitious aid of Protection, and there is every reason to hope that the field will be greatly extended when wealthy Indians show more willingness to embark their capital in industrial enterprises. But if any class of manufacturers succeeded in inducing the Government to subsidise it by means of Protective duties, a deafening and unreasoning clamour would arise from many directions for similar favours. The grave possibilities that lie here will be appreciated by all who have studied the history of Protection in the United States and are acquainted with the conditions that obtain in India.

INDIAN TARIFF POSSIBILITIES

Mr. W. de P. Webb, C.I.E., Chairman of the Karachi Chamber of Commerce setting out the possibilities of a scientific tariff writes —

The expediency of subordinating every social, economic, political and Imperial consideration to the attainment of cheapness in consumption has never been recognized or admitted by Indian thinkers. For this reason the abolition of the general five per cent. import duties in 1882 in obedience to the demands of English Free Traders aroused no enthusiasm in India. Nor did their re-imposition in 1894 (when the Government of India, owing to financial stress, were compelled to seek additional revenues), lead to any general protest on the part of Indian consumers or others. The 1894 Customs Tariff is still in operation. Its general design and modifications foreshadow a departure from the rigid formulae of the extreme Free Trader. Thus, although the reduction of the general 5 per cent. duty to 3½ per cent. in the case of cotton piece-goods and certain other manufactured cotton goods, and the imposition of a 3½ per cent. Excise Duty on the products of the Indian Cotton Mills, reveal a deplorable sacrifice of Indian interests to the demands of the cotton manufacturers of the English Midlands, the lower rate

of duty of one per cent. on many iron manufactures and the admission of Railway material, power machinery, printing presses and ink, coal, manure works of art, lead sheets for tea chests, and other special articles *free of duty* indicates a desire on the part of Government to utilize the tariff for the encouragement of certain kinds of economic development in India. This move in the direction of a scientific tariff is one that is heartily welcomed in India.

A further step towards a Tariff appropriate alike for Indian and Imperial requirements was taken in March, 1913 when the Hon. Sir Gangadhar Chitnavis, Member for the Central Provinces, moved the following Resolution in the Imperial Legislative Council —

That this Council recommends to the Governor General in Council the desirability, in view of the loss of the optimum revenue of considering financial measures for strengthening the resources of the Government, with special reference to the possibility of increasing the revenue under a system of Preferential Tariffs with the United Kingdom and the Colonies.

The mover argued that the benefits to India that would arise from the adoption of the prin-

ciple here indicated, would be well worth the price that India might have to pay therefor. Sir Guy Fleetwood Wilson on behalf of the Government of India, sympathetically reviewed the general situation at some length, but suggested "further consideration of the intricate and delicate issues before committing the Imperial Council to the recommendation embodied in Sir Gangadhar Chitnavis Resolution. The Resolution was accordingly withdrawn. Sir Guy Fleetwood Wilson's very able speech will repay careful study.

Tariff Reform League's Views.

Some idea of the direction in which a scheme of Inter-Imperial Preferential Trade would tend, so far as India is concerned may be gathered from the following extract from the official Handbook of the Tariff Reform League —

Preference would mean to India that the United Kingdom and the Colonies would give freer entry to Indian tea, coffee, sugar, wheat, and all Indian staple products and it would mean to us that the Indian import duty on a large number of British manufactures would be either abolished or reduced."

The fact that India produces more wheat than any other part of the Empire and more tea, coffee, sugar, cotton, jute, indigo and other dyestuffs, oil-seeds, undressed leather and cordage than all the rest of the Empire put together makes India's position in any Imperial scheme of Preferential Trade one of paramount importance to all who aim at the progressive development of the Empire's Tariff Systems.

Industrial Expansion needed.

One of India's important needs and legitimate ambitions at the present day is industrial expansion (1) to relieve her congested agricultural industries, (2) to provide further occupations for those located in districts liable to gain failure, and (3) to create a variety and multiplicity of avocational commercial undertakings and home markets suitable and profitable for Indians of all tastes, capacities, and races. These needs and ambitions can be met by modifications of the Indian Customs Tariff which, whilst not adversely affecting British interests, would materially assist India's foreign and in-

ternal trade. Thus, the manufacture in India of sugar shawls, cotton, goods of low qualities, steel metal work, enamelled ware, carpets, lace, pottery, indigo, glassware, oleo vegetable and mineral, toys, perfumes, pencil lamps etc., none of which are supplied in large quantities by the United Kingdom could be encouraged by a scientific adjustment of the Indian Tariff. With regard to Indian exports Great Britain could give encouragement to India's wheat, jute, indigo, tea, coffee, tobacco etc. whilst Foreign nations could be approached with confidence if India possessed retaliatory powers with regard to her tariff. Russia's preference for Chinese tea for example might be modified if India's regard for Russian petroleum were restricted. So too Germany's discrimination with regard to manufactured jute, rice, etc. might be met by an Indian discrimination with regard to German manufactures. The United States and France might be similarly considered and all without the slightest risk to Indian or British commercial interests.

Protection must come.

These considerations bring us to the conclusion that India has much to gain economically and politically and little or nothing to lose by proceeding a step further in the development of her Tariff. As the late Sir Edward Law pointed out, it is the natural desire of the great protectionist countries of the world to keep the peoples of India in the position of brewers of wood and drawers of water for their (i.e. foreign nations) manufacturers. Ought such a situation to be tolerated when we hold the remedy in our own hands? Can we expect the people of India to accept it with equanimity? Obviously not. It is sometimes thought by rigid free traders in the United Kingdom that England can continue indefinitely to impose her free-import policy on India. This is a grave misapprehension. Sooner or later probably sooner India's tariff will have to be modified in accordance with the views of India's industrial and political leaders. Those views unanimously favour protection for India's young but growing industries, protection against all competition if possible, but in any case protection against the competition of those foreign countries who handicap or exclude the importation of India's manufactured products.

INDIAN COTTON DUTIES ACT

The origin of this fiscal measure dates back to 1894 when the embarrassment caused to the finances of India by the fall in exchange drove the Government of India to the necessity of adopting measures to increase their sources of revenue. Among these measures was the re-imposition of the Customs Tariff which had been in force prior to 1862 subject, however, to this difference that cotton yarns and fabrics, which had formerly been subjected to an import duty, were in 1894, excluded from the list of dutiable articles. This partial re-imposition of import duties had been recommended by the Herschell Commission which, in reporting in 1893 on the currency question, had favoured this method of adding to the revenue as being the least likely to excite opposition. In point of fact, however, this recommendation which was carried into

effect in the Indian Tariff Act of March 1894 gave rise to very marked opposition. In support of their policy the Government appealed to the Resolutions passed in 1877 and reaffirmed in 1879 by the House of Commons, the first of which had condemned the levy of import duties on cotton fabrics imported into India as "being contrary to sound commercial policy," while the latter called upon the Government of India to effect the complete abolition of these duties as being unjust alike to the Indian consumer and to the English producer. It was, however, an open secret that the decision to exclude from the list of dutiable articles cotton yarns and fabrics was not the decision of the Government of India but that of the Secretary of State. It was pertinently pointed out that the volume of trade in cotton goods and

yarns then represented nearly one-half of the total imports from abroad and that the exemption of these important commodities alongside other important commodities when practically every single other commodity was being subjected to an import duty could not be justified on its merits as a sound fiscal measure, much less when it was an admitted fact that the Budget would still show a deficit.

Excise Duties Imposed.—The opposition to this measure though it failed to secure its rejection in the Legislative Council, was strong enough to induce the Secretary of State to reconsider the matter. Yielding to the united representations of the Government of India and of Indian public opinion, His Majesty's Government eventually agreed to the re-imposition of import duties on cotton yarns and fabrics provided that it could be shown that such a measure was necessitated by the position of Indian finances, and that it was combined with an Excise duty which would deprive the import tax of any protective character. Accordingly in December 1894, consequent on the further deterioration in the financial position two bills were introduced in the Legislative Council. The first of these subjected cotton yarns and fabrics to the general import duty of 5 per cent. ad valorem. The second imposed an Excise duty on all cotton yarns of 20's and above produced by Mills in British India. In introducing this latter Bill the then Finance Minister, Sir James Westland, was careful to explain that the policy underlying its provisions had been imposed on the Government of India by the Secretary of State in pursuance of the Resolution of the House of Commons quoted above. The provisions of this particular Bill are of little interest. From the first it was recognised that they were impractical. Lancashire and Indian spinners disagreed as to the point at which the line should be drawn exempting Indian yarns from the Excise Duty. Practical difficulties were pointed out by Indian spinners as to the impossibility of spinning precisely to a particular count. From the Lancashire point of view it was contended that the Bill offered facilities for evasion while it was admitted that under the system adopted in the Bill, the taxation of Indian and Lancashire products was not being carried out on a similar basis.

Act of 1896.—The Act was in fact doomed to be short-lived, and in December 1896 the Government of India were compelled to reconsider the whole position and to introduce an entirely new measure which became law in January 1896 as the Indian Cotton Duties Act II of 1896. This measure proceeded from two conclusions, namely that no attempt should be made to obtain any duty from yarns whether imported or locally manufactured, and that an equal rate of duty should be applied to all woven goods whether imported or of Indian origin. With the object of conciliating the opposition, the rate of duty was fixed at 3½ per cent. as opposed to the general rate of Customs duty of 5 per cent. The main provisions of the Act provided that the assessment for the purposes of collecting the Excise duty should be based on returns submitted by the mill-owners; and that provision should be made for a rebate in the case of woven goods exported out of India. No control beyond a requirement that statis-

tical returns should be furnished was attempted in respect of spinning mills. On the other hand certain concessions in the matter of import duty on Mill stores were made by executive order so as to place Indian Mills on a footing more or less equal to their Lancashire competitors.

Criticisms of the Measure.—It is not possible within the limits of the present article to do more than summarise the criticisms with which this measure was received in India. Much of the opposition was based on grounds of a transient character as for instance that the Indian industry was then in a state of continued depression and that it had been hard hit, particularly in respect of its export trade, by the currency legislation and by the uncertainty as to the fiscal policy of Government. In some quarters objection was offered to the exemption of yarn which it was alleged would place the Indian hand weaving industry at an advantage with the Indian power weaving industry. But the hostility to this measure, as also to the earlier measures already described, clearly proceeded from the feeling that the policy of the Government of India and of the Secretary of State had been dictated by Lancashire and that the action of Lancashire was due not so much to the fact that there was any real competition between Indian and Manchester goods but to a desire to handicap the Indian industry whose progress was already causing uneasiness to Lancashire interests. It was argued that the imports from Lancashire were practically all of the higher counts, which, for climatic and other reasons, Indian mills could not produce; that in any case the advantage to the Indian millowner of the import duty was inconsiderable and was counterbalanced by certain drawbacks arising from the inferiority of Indian labour which could not be overcome and that this advantage, such as it was, could scarcely be said to have a protective character in view of the higher cost of initial equipment in the case of an Indian mill which has to import its machinery and of working expenses consequent on the scarcity of skilled labour and on the necessity of importing stores required in the production of cloth. Finally from the standpoint of the consumer very severe criticism was directed against the reduction in favour of imported cotton goods, of the general rate of duty from 5 per cent. to 3½ per cent. on the ground that the effect of the legislation would relieve the richer classes who were consumers of the finer Manchester fabrics and impose new taxation on the poorer classes whose requirements were met by the Indian mills.

New Factors in the Situation.—Since the passing of this measure into law the policy of the Government of India in this respect has frequently been the subject of attack in the press and in the Legislative Councils while it has also formed the subject of continued representations by the industrial interests affected and political organizations. In more recent years the agitation in favour of the abolition of the Excise duties has been revived by the growth in England of a strong body of public opinion in opposition to the policy of Free Trade. Advantage has been taken of this new phase in English economic thought to

press on behalf of India the acceptance of a policy of Protection and the removal of the Excise duties is now claimed by the opponents to this measure as a necessary corollary of the application to the British Empire of the principles associated with the name of Mr Chamberlain. A new factor in the situation which has strengthened the position of those who are in opposition to the Excise duties is to be found in the severe competition which Indian mills have to face in China as well as in India from the Japanese industry. The Japanese market was lost to India in the early years of this century. More recently however Japan has entered as a competitor with India into the China market while within the last few years it has pushed its advantage as against the Indian millowner in the Indian market itself. Again it is claimed that the recent enhancement of the silver duty has materially affected the position of the Indian spinner who relied on the China market. On two occasions within the last five years the question of Excise duties has come prominently to the front as a result of debates in the Viceroy's Council. The official attitude is firmly based on the position that the Excise duties stand and fall with the import duties. Against such an attitude all arguments based either on the advantages of a Protectionist as opposed to a Free Trade policy or on the handicap to which the present system exposes the Indian millowner can of course make no head way. The Government of India are confronted with a heavy recurring loss in their revenues as a result of the abolition of the opium traffic. The import duties on cotton piece-goods represent nearly fifteen per cent of the total revenue collected as Customs duty while the Excise duty itself realised no less than 47 lakhs in 1912-13. The strength of the arguments which support the Government position is so patent that the movement in favour of the total abolition of the Excise duty is gradually giving way to a feeling that a solution may be found in maintaining the

Excise duty at its present rate while enhancing the import duties to the level of the general rate of Customs duty. This policy which is frankly of a protective character can to some slight extent be supported by the change in the position of Lancashire in respect of the imports of cotton piece-goods. In 1894 when the duties were first imposed the share of Lancashire was no less than 98 per cent of the total import trade in piece-goods. Foreign competition, notably from Japan has reduced its share to 91 per cent and it may be expected that the success of this attack on the position of Lancashire will in the near future loom largely in the arguments of those who favour a modified form of protection within the Empire.

Statistics of the Industry.—The main statistical features of the industry may briefly be referred to in illustration of the effects of the legislation discussed above. The total production of yarn in Indian mills has risen from an average in 1895-1900 of 443 million lbs to 662,000,000 lbs of which 134,000,000 were exported. In the lower counts the increase has been from 423 to 591,000,000 lbs. counts above 25 having increased from 20,000,000 yds to 60,000,000 lbs. On the other hand the imports of yarn from the United Kingdom representing about 6 per cent of the total production in British India have varied from 43,000,000 lbs to 27,000,000 lbs, of which 36,000,000 are of counts above 25. The number of spindles has increased from 3½ millions in 1894-95 to 6,834,989 millions in 1914-15.

The development of weaving has been even more marked. Looms numbered, in 1914-15, 104,180 as against 31,623 in 1894-95 while the production of cloth which averaged just under 92,000,000 yds in 1896-97 has advanced to 114,000,000. Grey goods represent about four-fifths of this total. The Excise duty which was estimated on the introduction of the Act of 1896 to yield 14 lakhs, yielded in 1914-15 51½ lakhs.

Banking in India

Of the three Presidency Banks the Bank of Bengal which commenced business in the year 1806 is by far the oldest. It was followed by the Bank of Bombay in 1840 and by the Bank of Madras in 1844, but the former was wound up in the year 1867 and the present Bank dates from the year 1868.

To commence with and for some considerable time thereafter Government had a very large interest in all three Banks holding as they did a large proportion of the share capital and having the right to nominate a number of the Directors. It was decided however in 1876 that this connection should cease and Government holding of shares was accordingly realised in that year and the right to be represented on the Directorates was given up at the same time. Government are still entitled however, to audit the Banks accounts at any time if they deem this necessary to call for any information touching the affairs of the Banks and the production of any documents relative thereto and may also require the publication of such statements of assets and liabilities at such intervals and in such form and manner as may be thought fit. The Banks' Agreements with Government are usually arranged for a period of ten years at a time and now-a-days provide for the most part for the carrying on at the head offices and branches of the ordinary banking business of Government in India and for the management and conduct in the three Presidency towns of the Government loans. The management of the Government Savings Bank was at one time entrusted to the Bank, but this was handed over to the Post Office in the year 1896.

Paper Currency

The Banks had the right to issue currency notes until the year 1862 but in that year this privilege was withdrawn and to compensate the Banks for being deprived of this right, Government decided to deposit the whole of their balances at the Presidency towns with the Banks. This practice held good until the year 1876, when the Reserve Treasuries were formed, but since that year Government balances, which are all payable at call, have only been maintained at a figure sufficient to meet the demands of Government and sufficient also to compensate the Banks in part for the work of keeping the accounts. There are signs however that Government intend to adopt a more liberal policy in future in regard to the balances they maintain with the Presidency Banks. There is no definite undertaking on the part of Government to keep any balance with the Banks either at the head offices or branches but there is a stipulation that in the event of the balance at the head office of each Bank falling below a certain stated figure, which varies in the case of each Bank, Government will pay interest on the deficit.

Government Deposits.

The following statement shows the Government deposits with each Bank at various periods during the last 40 years or so,

In Lakhs of rupees.

—	Bank of Bengal.	Bank of Bombay.	Bank of Madras.	Total.
30 June				
1876	409	195	115	719
1881	230	61	53	344
1886	329	82	39	450
1891	332	97	53	482
1896	335	88	57	370
1901	187	90	63	340
1906	186	93	46	325
1911	198	129	77	404
1912	210	155	75	440
1913	247	167	68	482
1914	290	197	93	580
1915	263	187	102	552

General Banking Business.

This is regulated by the Presidency Banks Act, 1876 under which Act all three Banks are now working. The various descriptions of business which the Banks may transact are clearly laid down in Sec. 36 of the Act, and it is expressly provided in Sec. 37 that the Banks shall not transact any kind of banking business other than those sanctioned in Sec. 36. Briefly stated the main classes of business which the Banks may engage in are as follows —

- (1) Investing of money in any securities of the Government of India or of the United Kingdom of Great Britain and Ireland, the stock or debentures of or shares in Railways bearing a Government guarantee in respect of interest and the debentures and securities of any Municipal body or Port Trust in India or of the Bombay Improvement Trust and the altering, converting and transposing of such investments.
- (2) Advancing of money against any of the securities specified above or against bullion or other goods which or the documents of title to which are deposited with or assigned to the Bank as security.
- (3) Advancing of money against accepted bills of Exchange and promissory notes.
- (4) Drawing, discounting, buying and selling of bills of exchange and other negotiable securities payable in India or Ceylon.
- (5) Receiving deposits.
- (6) Receiving securities for safe custody and realisation of interest, &c., from constituents of the Bank.
- (7) Buying and selling of gold and silver, whether coined or uncoined.
- (8) Transacting pecuniary agency business on commission.

The principal restrictions placed on the business of the Banks are as follows:—

- (1) The drawing, discounting, buying and selling of bills of exchange and other negotiable securities is confined to bills and securities payable in India and Ceylon
- (2) Borrowing of money is only permitted in India.
- (3) Loans or advances upon mortgage or in any other manner upon the security of any immovable property or the documents of title relating thereto is expressly prohibited
- (4) The amount which may be advanced to any individual or partnership by way of discount or on personal security is limited to an amount prescribed in the Bye-Laws of the Banks such Bye-Laws having previously been approved by Government
- (5) Loans or advances cannot be granted for a longer period than six months at a time
- (6) Discounts cannot be made or advances on personal security be given, unless such discounts or advances carry with them the several responsibilities of at least two persons or firms unconnected with each other in general partnership

Various representations have been made to Government by the Banks to have certain of these restrictions withdrawn particularly those referred to under Nos 1 and 2 which latter effectually prevent the Banks from doing

anything in the nature of a change business and from having access to the London money market for borrowing purposes. The restrictions in question were imposed at a time when the Government deposits formed a very large proportion of the Banks' total deposit and when also owing to the instability of exchange, there was some danger of losses being incurred in engaging in that class of business. The Banks have contended however that as Government deposits now form a very small proportion of the total deposits, and as exchange has definitely been fixed at 16 pence there is no further necessity for the restrictions; and have asked that they should now be withdrawn. It has further been argued that as the Presidency Banks are the ultimate resort of the money market in India, it is necessary in the interests of trade that the Banks should have some means open to them of increasing their resources in India in times of pressure and that the best means of giving them this power is to permit them to borrow in London. The Government of India were prepared to meet the Banks' wishes in the above connection to a great extent in the year 1903 but the Secretary of State did not approve of the Government proposals, and they were finally negatived in 1906.

Government Deposits

The proportions which Government deposits have borne from time to time to the total Capital Reserve and deposit of the three Banks are shown below —

In Lakhs of Rupees

	1 Capital	2 Reserve	3 Government deposits	4 Other deposits	Proportion of Government deposits to 1, 2, 3 & 4
31st December					
1881	350	61	333	542	2.8 per cent.
1886	350	82	352	625	24.9
1891	350	97	297	1412	13.7
1896	350	108	299	1292	14.2
1901	360	213	340	1463	14.3
1906	360	279	307	2740	8.3
1907	360	294	330	2811	8.8
1908	360	309	325	2861	8.4
1909	360	318	319	3265	7.4
1910	360	331	423	3234	9.7
1911	360	340	438	3419	9.6
1912	375	361	426	3578	9.0
1913	375	370	537	3644	11.6
1914	375	386	561	4002	10.5

The Banks have also the management of the debt of a number of the Municipalities, Port Trusts and Improvement Trusts throughout India.

Government policy in regard to the disposal of their surplus treasury balances in India has been strongly criticised at various times during the last thirty years or so and it has been argued that the high rates of interest which are so common a feature in India when the crops come to be marketed are to a very large extent due to Government action in withdrawing money from the market when it is most needed and locking it up in the Reserve Treasuries. This question was considered at some length by the Royal Commission on Indian Finance and Currency which arrived at the conclusion that the present methods of dealing with the balances were open to criticism. The Commission further stated that the most obvious remedy would be to close the Reserve Treasuries and place the whole of the Government balances in the Presidency towns with the Presidency Banks but their final recommendation in this connection was that Government should make loans from their balances to the Presidency Banks—such loans to be

within the absolute discretion of Government and to be granted only on good security and for short periods. It is not known how far the Government of India are prepared to accept the Commission's recommendation in this respect but it is understood that the matter is presently under consideration.

The question of the establishment of a State Bank was considered at some length by the Commission and a considerable mass of evidence was taken on this point. The opinions offered were however very conflicting, and although a draft scheme for such a Bank was drawn up by two of the Members of the Commission, the Commission as a whole finally came to the conclusion that they were not in a position to make recommendations one way or the other on the question of a State Bank. It was suggested that a small expert body should be appointed in India to study the whole question and it is understood that the Government of India have the question of appointing such a Committee presently under consideration.

Recent Progress.

The following statements show the progress made by the three Banks within recent years —

In Lakhs of Rupees

BANK OF BENGAL.

	Capital	Reserve	Govt deposits	Other deposits	Cash	Investments	Dividend for year
31st December							
1885	200	41	148	383	312	116	9½ per cent.
1890	200	47	226	486	630	206	9½
1895	200	68	194	677	422	132	10
1900	200	108	135	582	243	136	11
1905	200	140	167	1204	396	181	12
1906	200	160	160	1505	528	149	12
1907	200	157	187	1573	460	279	12
1908	200	185	178	1576	507	349	13
1909	200	170	168	1760	615	411	14
1910	200	175	198	1609	514	368	14
1911	200	180	270	1677	729	321	14
1912	200	185	234	1711	665	310	14
1913	200	191	301	1824	840	319	14
1914	200	200	287	2180	1169	621	16

BANK OF BOMBAY

	Capital	Reserve	Govt deposits	Other deposits	Cash	Investments	Dividend for year
1885	100	25	53	276	218	33	7½ per cent.
1890	100	33	63	619	573	78	10
1895	100	51	76	358	228	105	11
1900	100	70	87	482	129	89	11
1905	100	87	92	676	259	158	12
1906	100	92	101	832	364	177	12
1907	100	95	112	821	324	164	13
1908	100	101	94	832	377	149	13
1909	100	103	120	1035	415	163	13
1910	100	105	152	1053	496	149	14
1911	100	106	107	1104	463	208	14
1912	100	108	117	1124	315	210	14
1913	100	108	200	1016	477	232	14
1914	100	110	188	1061	646	292	15

BANK OF MADRAS.

	Capital	Reserve	Govt deposits	Other deposits	Cash	Investments	Dividend for year
1885	50	8	31	107	76	19	7 per cent.
1890	50	14	47	220	155	45	10½
1895	50	16	43	278	144	45	10
1900	60	22	35	280	82	67	8
1905	60	30	41	344	140	71	10
1906	60	32	54	335	151	81	10
1907	60	36	35	416	182	84	10
1908	60	40	52	447	163	84	11
1909	60	44	40	500	141	79	12
1910	60	48	72	561	184	86	12
1911	60	52	59	625	165	104	12
1912	75	70	75	743	196	118	12
1913	75	73	86	805	219	117	12
1914	75	76	91	761	26	114	12

Note—(The Banks have power under Sec 38 (b) to draw Bills of Exchange payable out of India under certain stated circumstances, but this permission is of comparatively little importance.)

BANK OF BOMBAY

Branches

BANK OF BENGAL

Calcutta—

Harrison Road Clive Street & Park Street.
Agre Akyab Allahabad Benares, Cawnpore
Chittagong, Dacca Delhi Hyderabad Der
can Jalpalgur Lahore Lucknow Mouline
Nagpore, Narainunge Patna, Rangoon,
Secunderabad, Simla.

Pay Offices

Chandpore, Serajunge and Bombay (Agency).

Ahmedabad Akols Amraoti Broach, Hyde-
radad (Sind) Indore, Jaipur Kanad,
Poona, Rajkot, Sholapur Sukkur & Surat.

BANK OF MADRAS

Allepvy Bangalore, Bimipatam Calicut,
Coconada, Cochin Coimbatore, Colombo
Guntur Madras Mangalore Masulipatam
Nagapatam, Ootacamund, Salem Tellicherry
Tuticorin

Out Stations

Berwada, Lode, Narapur Rajahmundry and
Vizianagram.

THE EXCHANGE BANKS

The Banks carrying on Exchange business in India are merely branch agencies of Banks having their head offices in London, on the Continent, or in the Far East and the United States. Originally their business was confined almost exclusively to the financing of the external trade of India, but in recent years most of them, while continuing to finance this part of India's trade, have also taken an active part in the financing of the internal portion also at the places where their branches are situated.

At one time the Banks carried on their operations in India almost entirely with money borrowed elsewhere, principally in London—the home offices of the Banks attracting deposits for use in India by offering rates of interest much higher than the English Banks were able to quote. Within recent years however it has been discovered that it is possible to attract deposits in India on quite as favourable terms as can be done in London and a very large proportion of the financing done by the Exchange Banks is now carried through by means of money actually borrowed in India. No information is available as to how far each Bank has secured deposits in India but the following statement published by the Director-General of Statistics in India shows how rapidly such deposits have grown in the aggregate within recent years.

TOTAL DEPOSITS OF ALL EXCHANGE BANKS SECURED IN INDIA.

In Lakhs of Rupees

1875	108
1880	339
1885	475
1890	753
1895	1630
1900	1050
1901	1183
1902	1370
1903	1614
1904	1633
1905	1704
1906	1806
1907	1917
1908	1951
1909	2027
1910	2479
1911	2316
1912	3103

Exchange Banks Investments.

Turning now to the question of the investment of the Banks' resources, so far as it concerns India, this to a great extent consists of the purchase of bills drawn against imports and exports to and from India.

The financing of the import trade originated and is carried through however for the most

part by Branches outside of India, the Indian Branches' share in the business consisting principally in collecting the amount of the bills at maturity and in furnishing their other branches with information as to the means and standing of the drawers of the bills, and it is as regards the export business that the Indian Branches are more immediately concerned. The Exchange Banks have practically a monopoly of the export finance in India and in view of the dimensions of the trade which has to be dealt with the Banks would under ordinary circumstances require to utilise a very large proportion of their resources in carrying through the business. They are able however by a system of rediscount in London to limit the employment of their own resources to a comparatively small figure in relation to the business they actually put through. No definite information can be secured as to the extent to which rediscounting in London is carried on but the following figures appearing in the balance sheets dated 31st December 1914 of the undernoted Banks will give some idea of this.

LIABILITY ON BILLS OF EXCHANGE REDISCOUNTED AND STILL CURRENT

	£
Chartered Bank of India	3 871 000
Eastern Bank Ltd	1 074 000
Hongkong and Shanghai Banking Corporation	11 584 000
Mercantile Bank of India, Ltd.	1 788 000
National Bank of India, Ltd.	4 037 000
	21 854 000

The above figures do not of course relate to red-discounts of Indian bills alone, as the Banks operate in other parts of the world also, but it may safely be inferred that bills drawn in India form a very large proportion of the whole.

The bills against exports are largely drawn at three months sight and may either be clean

or be accompanied by the documents relating to the goods in respect of which they are drawn. Most of them are drawn on well known firms at home or against credits opened by Banks or financial houses in England and bearing as they do an Exchange Bank endorsement they are readily taken up by the discount houses and Banks in London. Any bills purchased in India are sent home by the first possible Mail so that presuming they are rediscounted as soon as they reach London the Exchange Banks are able to secure the return of their money in about 16 or 17 days instead of having to wait for three months which would be the case if they were unable to rediscount. It must not be assumed however that all bills are rediscounted as soon as they reach London as at times it suits the Banks to hold up the bills in anticipation of a fall in the London discount rate while on occasions also the Banks prefer to hold the bills on their own account as an investment until maturity.

The Banks place themselves in funds in India for the purpose of purchasing export bills in a variety of ways of which the following are the principal —

- (1) Proceeds of import bills as they mature.
- (2) Sale of drafts and telegraphic transfers payable in London and elsewhere out of India.
- (3) Purchase of Council Bills and Telegraphic Transfers payable in India from the Secretary of State.
- (4) Imports of bar gold and silver bullion.
- (5) Imports of sovereigns from London, Egypt or Australia.

The remaining business transacted by the Banks in India is of the usual nature and need not be given in detail.

The following is a statement of the position of the various Exchange Banks carrying on business in India as at 31st December 1914.

In Thousands of £.

	Capital	Reserve	Deposits.	Cash and Investment
Chartered Bank of India	1200	1800	18416	9-81
Comptoir National D'Escompte de Paris.	8000	1638	68097	9518
Devl and London Bank, Ltd	337	22	1447	363
Eastern Bank, Ltd.	598	55	1935	790
Hongkong & Shanghai Bank	1500	3325	32931	11306
International Banking Corpn	650	650	4880	2689
Mercantile Bank of India	562	500	5152	1947
National Bank of India	1000	1100	14832	5283
Russo Asiatic Bank (1912)	4745	2500	35847	7884
Yokohama Specie Bank	3000	2008	18602	6702

JOINT STOCK BANKS

Previous to 1906 there were few Banks of this description operating in India, and such as were then in existence were of comparatively small importance and had their business confined to a very restricted area. The rapid development of this class of Bank, which has been so marked a feature in Banking within recent years, really had its origin in Bombay and set in with the establishment of the Bank of India and the Indian Specie Bank in 1906.

After that time there was a perfect stream of new formations, and although many of the new Companies confined themselves to legitimate banking business, on the other hand a very large number engaged in other businesses in addition, and can hardly be properly classed as Banks.

These Banks made very great strides during the first few years of their existence, but it was generally suspected in well informed circles that the business of many of the Banks was

of a very speculative and unsafe character and it was a matter of no great surprise to many people when it became known about two years ago that some of the Banks were in difficulties.

The first important failure to take place was that of the People's Bank of India and the loss of confidence caused by the failure of that Bank resulted in a very large number of other failures the principal being that of the Indian Specie Bank.

The public have for the time being lost much of their confidence in this class of Bank and deposits to a very large extent have been withdrawn and it is feared that a large portion of the money has gone back into hoards. This is very unfortunate as many of the Banks, particularly the older established concerns, have always been recognised as being conducted on safe and prudent lines.

The following shows the position of the better known existing Banks as it appears in the latest available Balance Sheets —

In Lakhs of Rupees.

	Capital	Reserve.	Deposits.	Cash and Investments
Allahabad Bank, Ltd.	30	45	521	142
Alliance Bank of Simla Ltd	20	40	578	284
Bank of Baroda, Ltd	10	31	93	22
Bank of India, Ltd	30	51	254	65
Bank of Mysore Ltd	10	1	30	12
Bank of Rangoon, Ltd.	16	4	21	12
Bengal National Bank Ltd	8	12		
Bombay Merchants Bank, Ltd	14		4	
Central Bank of India, Ltd	15	1	48	31
Indian Bank, Ltd	10	11	22	10
Karachi Bank Ltd.	2		4	1
National Financing and Commission Corporation Ltd	16		3	2
Ondh Commercial Bank, Ltd	5	42		
Poona Bank, Ltd	11	1	4	
Punjab Banking Co. Ltd	6	122	119	46
Punjab National Bank, Ltd.	15	10	78	42
Standard Bank, Ltd.	20		12	1

The principal Banks which have gone into liquidation during the last twelve or eighteen months are given below along with a Statement of their Capital Reserve and deposits as at the date of the latest available Balance Sheets —

In Lakhs of Rupees.

	Capital	Reserve.	Deposits.
Bank of Upper India (1912)	10	0	191
Bombay Banking Co	1		15
Credit Bank of India, Ltd	10		51
Indian Specie Bank Ltd	75	15	270
Kathlawad and Ahmedabad Banking Corporation	7		28
Lahore Bank, Ltd (1912)	1		28
People's Bank of India, Ltd.	12	2	127
Punjab Co-operative Bank, Ltd (1912)	7	2	66
The Pioneer Bank	3-84	-	1 06

Growth of Joint Stock Banks.

The following figures appearing in the Report of the Director General of Statistics shows the growth of the Capital, Reserve and Deposits of the principal Joint Stock Banks registered in India —

	In Lakhs of rupees		
	Capital.	Reserve	Deposits.
1870	9	1	18
1875	14	2	27
1880	18	3	63
1885	18	5	94
1890	33	17	270

	Capital.	Reserve	Deposits.
1890	63	81	504
1900	82	45	807
1905	84	77	1198
1906	133	56	1155
1907	229	65	1400
1908	259	69	1826
1909	266	87	2049
1910	275	100	2565
1911	285	126	2529

(Capital & Reserve Deposits)

1911	364	2259
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NATIVE PRIVATE BANKERS AND SHROFFS

Native private Bankers and Shroffs flourished in India long before Joint Stock Banks were ever thought of, and it seems likely that they will continue to thrive for some very considerable time to come. The use of the word "Shroff" is usually associated with a person who charges numerous rates of interest to impecunious people, but this is hardly fair to the people known as "shroffs" in banking circles, as there is no doubt that the latter are of very real service to the business community and of very great assistance to Banks in India. Under present conditions the Banks in India can never hope to be able to get into sufficiently close touch with the affairs of the vast trading community in India to enable them to grant accommodation to more than a few of these traders direct, and it is in his capacity as middleman that the shroff proves of such great service. In this capacity also he brings a very considerable volume of business within the scope of the Presidency Banks Act, and enables the Presidency Banks to give accommodation which, without his assistance, the Banks would not be permitted to give. The shroff's position, as an intermediary between the trading community and the Banks usually arises in some way after the following manner. A Shopkeeper in the bazaar with limited means of his own, finds that, after using all his own money, he still requires say Rs. 25,000 to stock his shop suitably. He thereupon approaches the shroff and the latter after very careful inquiries as to the shopkeeper's position grants the accommodation, if he is satisfied that the business is safe. The business, as a rule, is arranged through a boondoe broker and in the case referred to the latter may probably approach about ten shroffs and secure accommodation from them to the extent of Rs. 2,500 each. A boondoe usually draws at a currency of about 2 months is almost invariably taken by the shroffs in respect of such advances.

A stage is reached however when the demands on the shroffs are greater than they are able to meet out of their own money and it is at this point that the assistance of the Banks is called into requisition. The shroffs do this by taking a number of the bills they already hold to the Banks for discount under their endorsement and the Banks accept such bills freely to an extent determined in each case by the standing of the shroff and the strength of the drawers. The extent to which any one shroff may grant accommodation in the bazaar is therefore

dependent on two factors, viz., (1) the limit which he himself may think it advisable to place on his transactions and (2) the extent to which the Banks are prepared to discount bills bearing his endorsement. The shroffs keep in very close touch with all the traders to whom they grant accommodation and past experience has shown that the class of business above referred to is one of the safest the Banks can engage in.

The rates charged by the shroffs are usually based on the rates at which they in turn can discount the bills with the Banks and necessarily vary according to the standing of the borrower and with the season of the year. Generally speaking however a charge of two annas per cent per mensem above the Bank's rate of discount of 14% is a fair average rate charged in Bombay to a first class borrower. Rates in Calcutta and Madras are on a slightly higher scale due in a great measure to the fact that the competition among the shroffs for business is not so keen in these places as it is in Bombay.

The shroffs who engage in the class of business above described are principally Marwaris and Mulsims having their head Offices for the most part in Bikanir and Shikarpur respectively the business elsewhere than at the Head Offices being carried on by Moonims who have very wide powers.

It is not known to what extent native bankers and shroffs receive deposits and engage in exchange business throughout India, but there is no doubt that this is done to a very considerable extent.

Since the outbreak of war many of the shroffs particularly those of the Marwari community have discontinued their endorsing business to a large extent and in some cases they have actually closed their places of business and retired to their native places. The small traders who formerly relied on the shroffs to provide them with funds have been greatly hampered in business in consequence and some indication of the restriction of credit arising from this cause may be gathered from the following figures relating to the discounts of the Presidency Banks.

	Discounts current on 30th June 1913	Discounts current on 30th June 1915
	Rs.	Rs.
Bank of Bengal	332 lacs.	204 lacs.
Bank of Bombay	216 "	96 "
Bank of Madras	162 "	82 "
	700 lacs	384 lacs.

THE BANK RATE.

Each Presidency Bank fixes its own Bank rate, and the current rate of each Bank determines to a great extent the rates for all important classes of business within the Bank's sphere of influence. The rates in the three Presidencies are not always uniform, but it seldom happens that a difference of more than 1% exists more particularly as regards Bombay and Bengal, which seem to be in closer touch with each other than appears to be the case with Madras.

The rate fixed represents the rate charged by the Banks on demand loans against Government securities only and advances on other securities or discounts are granted as a rule at a slightly higher rate. Ordinarily such advances or discounts are granted at from one-half to one per cent. over the official rate but this does not always apply and in the monsoon months, when the Bank rate is sometimes nominal, it often happens that such accommodation is granted at the official rate or even less.

The following statement shows the average Bank rate of each Bank since 1881 —

Year	Bank of Bombay			Bank of Bengal.			Bank of Madras.		
	1st Half year	2nd Half year	Yearly average	1st Half year	2nd Half year	Yearly average	1st Half year	2nd Half year	Yearly average
1881	5 40	5 28	5 34	4 862	5 717	5 289			
1882	8 08	4 19	6 10	8 177	5 022	6 599			
1883	7 00	6 2	6 6	6 994	6 560	6 777			
1884	9 03	4 17	6 60	8 818	3 946	6 379			
1885	5 90	4 00	4 95	6 757	4 005	5 381			
1886	6 35	6 50	6 42	5 923	6 152	6 037			
1887	7 78	3 73	5 75	7 475	3 804	5 639			
1888	5 90	5 51	5 70	5 736	5 185	5 460			5 60
1889	9 46	4 00	6 73	9 309	4 674	6 991			6 38
1890	9 21	3 28	6 24	8 265	3 315	5 790			5 74
1891	8 88	2 23	3 06	8 502	2 822	3 062			2 98
1892	5 97	3 04	3 50	3 884	3 114	3 499			3 54
1893	5 97	3 84	4 90	5 685	4 076	4 880			5 27
1894	7 55	3 46	5 50	7 425	3 364	5 394			5 00
1895	4 30	3 60	3 95	5 065	3 592	4 329			4 26
1896	5 85	5 10	5 47	5 774	5 608	5 691			5 62
1897	10 11	5 64	7 87	9 884	6 967	7 925			7 97
1898	12 03	4 55	8 29	11 018	5 114	8 065			7 78
1899	6 34	5 42	5 88	6 337	5 494	5 915			5 05
1900	6 9	3 79	5 34	6 414	4 272	5 243			5 87
1901	7 07	3 83	5 45	6 895	4 070	5 482	7 57	4 00	5 83
1902	6 25	3 43	4 84	6 176	3 549	4 862	7	4 02	5 51
1903	6 7	3 46	5 09	6 265	3 494	4 879	7 13	4 27	5 70
1904	5 15	3 82	4 48	5 560	4 190	4 875	6 42	4 07	5 24
1905	5 77	4 42	5 09	5 558	4 630	5 094	6 04	4 19	5 11
1906	7 24	5 28	6 26	6 950	5 835	6 417	7 15	5 04	6 09
1907	7 81	4 11	5 96	7 685	4 576	6 105	8 24	4 54	6 39
1908	7 84	4 02	6 98	7 417	4 244	5 830	8 38	4 38	6 88
1909	6 47	3 82	5 14	6 580	3 907	5 243	7 55	4 41	5 98
1910	6 19	4 14	5 16	6 143	4 510	5 326	7 17	4 35	5 91
1911	6 55	3 52	5 03	6 657	4 358	5 507	7 69	4 36	5 97
1912	6 01	4 10	5 05	6 243	4 592	5 417	7 51	4 59	6 06
1913	7 23	4 62	5 92	6 569	5 881	6 950	7 76	5 54	6 65
1914	5 53	5 28	5 40	5 939	4 961	5 450	6 63	5 16	5 80
1915	5 84			5 889			5 87		

Bank of Bombay			Bank of Bengal			Bank of Madras		
Date.		Rate	Date.		Rate	Date.		Rate
1904		Per cent.	1905		Per cent.	1902		Per cent.
February	11	7	February	23	7	January	14	6
"	25	6	"	9	8	"	20	7
March	10	5	March	30	7	February	6	8
May	19	4	"	6	6	May	1	7
June	16	3	April			"	28	6
October	18	4	"	14	5	June	12	5
"	20	5	"	27	4	"	30	4
1905			July	20	3	December	23	5
February	2	6	"			1903		
"	16	9	August	17	4	January	12	6
March	9	7	"	29	5	February	8	7
"	30	7	September	29	5	"	10	8
April	6	6	October	30	6	April	20	7
"	14	5	November	14	7	July	2	6
July	6	4	December			"	18	5
"	27	3	1906			"	23	4
August	10	4	January	4	8	December	21	5
November	23	5	February	1	9	1904		
"	30	6	March	13	8	January	7	6
December	14	7	April	22	7	"	21	7
1906			"	5	6	May	18	6
January	4	8	May	12	5	"	30	5
February	1	9	"	3	6	July	5	4
March	16	8	"	17	7	December	22	5
"	22	7	June	24	6	"	5	4
"	29	6	"	28	4	1905		
April	26	7	July	19	3	January	23	6
May	24	6	August	9	4	February	27	7
June	21	5	"	23	5	March	18	8
July	12	4	September	13	6	"	8	7
"	9	4	October	20	7	April	14	6
August	12	5	November	11	6	May	8	5
September	16	6	December	15	7	"	29	6
November	22	7	1907			June	15	5
"	29	8	April	29	8	July	10	4
December	18	9	"	6	9	December	18	6
1907			May	18	8	1908		
March	7	8	"	25	7	January	8	7
May	2	7	"	2	6	"	16	8
"	9	6	"	16	5	April	4	7
June	6	7	July			May	28	6
"	20	6	"	4	4	June	21	5
"	27	5	September	25	3	"		
July	4	4	"	12	4	July	12	4
August	1	3	November	26	5	"		
September	28	4	December	7	6	September	17	5
November	7	5	1908			November	29	6
December	12	6	January	4	7	December	6	7
1908			"	9	8	"		
January	3	7	March	16	9	1907		
"	9	6	"	5	8	January	16	8
February	6	6	May	23	7	"	10	8
March	13	8	"	21	6	February	16	8
"	26	7	June			April	29	8
April	19	6	"	25	5	May	8	7
May	22	7	July	2	4	June	24	6
June	26	6	"	16	3	July	1	5

Bank of Bombay			Bank of Bengal.			Bank of Madras.		
Date.	Rate.		Date.	Rate.		Date.	Rate.	
1908	Per cent.		1908	Per cent.		1907	Per cent.	
July	2	5	September	3	4	July	8	4
"	10	4	November	5	5	November	4	5
"	23	4		26	6	December	23	7
October	22	4	1909			1908		
November	5	5	January	14	7	January	9	8
December	10	6	March	28	8	February	10	9
			April	18	7	May	18	9
1909			May	29	6	June	15	7
January	14	7	June	27	5	July	25	6
May	13	6	July	17	4	November	7	5
June	3	5	September	1	3	December	14	4
	24	4		30	4	1909	30	5
July	1	3	November	13	5	January	10	6
November	4	4	December	9	6			
	18	5	1910			1909	12	7
	20	6	March	3	7	June	28	8
1910			May	12	6	"	1	7
March	3	7	June	2	5	July	17	6
May	12	6	"	16	4		28	5
June	2	5	"	30	3		19	4
	23	4	September	22	4			
July	7	5	October	6	5	November	18	5
October	6	4	November	3	6	December	20	5
November	3	5	December	1	7	1910		
	17	6				January	4	7
December	13	7	1911					
1911			February	23	8	March	7	8
May	19	6	March	30	7	May	13	7
June	1	5	May	11	6	June	7	6
	21	4	June	1	5		20	5
July	13	3	August	16	4	July	4	4
October	19	4		3	3	November	5	5
December	21	5	September	31	4		5	5
				28	5	December	18	6
1912							22	7
January	11	6	1912			"	20	8
February	18	7	January	11	6	" 1911	23	7
	1	8		18	7	May	7	6
March	22	7	March	26	8	June	19	5
May	9	5		7	7			
June	20	6	May	21	6	July	7	4
July	13	4	June	23	5	November	14	5
	11	3	July	20	4	December	21	6
October	3	4	September	11	3	1912		
November	14	5	October	13	4	January	9	7
	28	6	November	3	5		29	8
December	12	7		14	6	May	20	7
	27	8		28	7	June	17	6
1913			1913				24	5
April	8	7	January	9	8	July	8	4
May	29	6	February	13	7	November	12	5
June	12	5	April	17	6	December	3	6
July	3	4	June	5	5	"	9	7
"	17	3		19	4		30	6
August	7	4	July	8	3	" 1913		
September	10	5	August	7	4	June	4	4

Clearing Houses

Bank of Bombay			Bank of Bengal			Bank of Madras.		
Date.		Rate.	Date.		Rate.	Date.		Rate.
1914			1914			October 1914	1	6
January	15	8	March	19	6	January	2	7
May	21	5	May	1	5	May	25	6
June	4	4	June	4	4	June	21	5
August	25	3	July	9	3	August	21	5
"	6	4	August	6	5	October	12	6
"	13	5	November	5	6	June 1915	7	5
"	20	6				December	1	6
1915			1915					
June	2	3	June	1	3			
December	1	6	December	1	6			

BANKERS CLEARING HOUSES.

The principal Clearing Houses in India are those of Calcutta, Bombay, Madras and Karachi, and of these the first two are by far the most important. The members at these places consist of the Presidency Banks, most of the Exchange Banks and English Banking Agency firms, and a few of the better known of the local Joint Stock Banks. No Bank is entitled to claim to be a member as of right and any application for admission to a Clearing must be proposed and seconded by two members and be subject thereafter to ballot by the existing members.

The duties of settling Bank are undertaken by the Presidency Bank at each of the places mentioned and a representative of each member attends at the office of that Bank on each business day at the time fixed to deliver all cheques he may have negotiated on other members and to receive in exchange all cheques drawn on him negotiated by the latter. After all the cheques have been received and delivered the representative of each Bank advises the settling Bank of the difference between his total receipts and deliveries and the settling Bank thereafter strikes a final balance to satisfy itself that the totals of the debtor balances agree with the total of the creditor balances. The debtor Banks thereafter arrange to pay the amounts due by them to the settling Bank

during the course of the day and the latter in turn arranges to pay on receipt of those amounts the balances due to the creditor Banks. In practice however all the members keep Bank accounts with the settling Bank so that the final balances are settled by cheques and book entries thus doing away with the necessity for cash in any form.

The Clearing House figures can usually be taken as giving some indication as to the condition of trade and to some extent also as to how far the banking facilities available are being taken advantage of but in the latter respect at all events the statistics for India do not form as useful a guide as those in most other countries. This is due to the fact that hardly any of the numerous Joint Stock Banks which have been formed within recent years have so far been admitted as members of the various Clearing Houses and as few if any of these Banks have obtained the assistance of two members in having their cheques cleared the Clearing House returns merely represent the transactions of the members and do not include in any way the totals of the cheques drawn on or negotiated by Banks not represented on the Clearing.

The figures for the Clearing Houses in India above referred to are given below —

Total amount of Cheques Cleared Annually
in lakhs of Rupees

	Calcutta.	Bombay	Madras.	Karachi.	Total.
1901	Not available	6 511	1 838	178	8 027
1902		7 013	1 296	268	8 578
1903		8 762	1 464	340	10,566
1904		9 492	1,536	365	11,393
1905		10 927	1,580	324	12,811
1906		10 912	1,582	400	12,895
1907	22,444	12,645	1,548	580	37 167
1908	21,221	12,585	1,754	643	36,203
1909	19 776	14,378	1,948	702	36,801
1910	22,228	16 652	2,117	765	41 762
1911	25 763	17 905	2,083	762	46,513
1912	28,931	20,631	1,153	1,159	51,874
1913	33,123	21 590	2,340	1,319	58,382
1914	26,081	17,696	2,127	1,315	47 199

Government of India Rupee Loans.

The following are the Loans in the hands of the public still extant, all the others having been extinguished either by conversion or by discharge —

- (1) Three & a half per cent. loan of 1842-43
- (2) Ditto 1854-55
- (3) Ditto 1865
- (4) Ditto 1879
- (5) Three per cent. loan of 1896-97
- (6) Three & a half per cent. loan of 1900-01
- (7) 4 per cent. Terminable loan of 1915-16

The first four of these loans were made repayable at the option of Government on or after 31st July 1904 on three months' notice being given so that the position now as regards these loans is that Government are at liberty to discharge them at any time on giving three months' notice. In view however of the necessity of fresh borrowings by Government this power is not likely to be exercised for some considerable time to come.

The 3½ per cent. Loan of 1900-01 is repayable, also at the option of Government, on or after 31st December 1920 on three months' notice being given and all loans issued since the year 1900 have been included in and form part of the 1900-01 loan.

In 1895 Government resolved in view of the easy condition of the money market to try the experiment of borrowing at 3 per cent and the loan of Rs 4 crores raised in that year was accordingly issued bearing that rate of interest. The opportunity was also taken to advertise for discharge the two 3½ per cent loans of 1853-54 and 1893-94 but proprietors of these loans were given the option of transferring their holdings to the new 3 per cent. loan. The Rs. 4 crores loan was successfully floated and appeared to be a great success but it was soon seen that the public had no use for a 3 per cent. security and Government have never repeated the attempt to borrow at 3 per cent. The successful tenderers for the loan of 1896-97 experienced great difficulty in disposing of any part of their holdings and as through course of time the notes became practically unmarketable it was generally felt that Government must do something to improve the market for the notes. Various proposals were submitted to Government with this end in view but the latter delayed taking any action in the matter until the year 1908. Such action took the form of giving holders the option of converting their 3 per cent. notes into 3½ per cent. notes of the 1900-01 loan on the following terms —

- (1) If the face value of the 3 per cent. notes tendered for conversion is an exact multiple of Rs. 700 the tenderer will receive in exchange 3½ per cent. notes for 6-7ths of such face value.
- (2) If the face value of the 3 per cent. notes tendered for conversion does not form an exact multiple of Rs. 700 the tenderer has the option of receiving—
- (a) 3½ per cent. notes equivalent to the nearest lower multiple of Rs. 700 calculated as in Clause 1 together with the difference in 3 per cent. notes, or

- (b) 3½ per cent. notes of the nearest higher equivalent face value in hundreds calculated as in Clause 1 on payment in cash of the difference between (i) 6-7ths of the face value of the 3 per cent. notes tendered and (ii) the face value of the 3½ per cent. notes received in exchange.

The above offer is still in force but Government have reserved the right to withdraw it at any time on giving 6 months' notice. The balance of the 3 per cent. loan stood at Rs. 10 95 lacs on 31st March 1897, at Rs. 11.07 lacs on 30th September 1903 and at Rs. 8.42 lacs on 31st March 1918. The work connected with the payment of interest, etc., on Government loans is entrusted to the Presidency Banks in the 3 Presidency towns, to the District Treasuries elsewhere in India, and to the Bank of England in London.

The 4 per cent. Terminable Loan of 1915-1916 was issued at par in August 1916 and the Loan if not previously redeemed will be repaid at par on 30th November 1923. Government however reserves the right to redeem the loan or any part of it at any time on or after the 30th November 1920 on giving three months' notice. A new departure was made when issuing this loan—the public were permitted to make applications through the Post Office for sums not exceeding Rs 5 000. Such applications received allotment in full. The offer remained open until 30th Oct. and resulted in a further subscription of forty four lakhs.

Government debt may be held in the form of promissory notes or Stock Certificates but Notes or Certificates can only be issued in even hundreds of rupees. Promissory notes are transferable by endorsement and as such transfers do not require to be registered it follows that Government do not keep any record of the holders of such notes from time to time. A holder of a Stock Certificate is a registered holder however and transfers can only be made by transfer deed which must be submitted to and approved of by the authorities conducting the loan business on behalf of Government.

The question of issuing Bearer Bonds with or without coupons attached, is presently being considered by Government and it seems likely that this form of security will be issued in the near future.

Interest is payable half yearly on each loan on the dates noted below

Loan of 1842-43	1st Feby & 1st August.
Loan of 1854-55	30th June & 31st Decr.
Loan of 1865	1st May & 1st Novr.
Loan of 1879	16th Jan'y & 16th July
Loan of 1896-97	30th June & 31st Decr.
Loan of 1900-01	30th June & 31st Decr.

Interest may be made payable at the option of the holder at the Public Debt Office Banks of Bengal, Bombay or Madras, at any Government Treasury, or at the Bank of England, London. In the case of Promissory Notes, presentation of the notes at the office where interest is payable is necessary before interest can be

drawn but this does not apply as regards Stock Certificates and interest warrants in respect of these are sent out to the registered holder as soon as interest falls due. The interest on notes issued to London is paid by rupee drafts on India.

Renewal, Conversion, Consolidation and Sub-Division of Promissory Notes.

RENEWAL.

When all the spaces reserved for endorsements on the reverse of a note have been filled up or when the spaces utilized for recording payments of interest have been exhausted the note requires to be renewed before any further transfers can be allowed or interest drawn. The fee for such renewal is at the rate of $\frac{1}{2}$ per cent. on the face value of the note subject to a maximum of Rs. 1 for each note but no renewal fee is charged in the case of a note on which no endorsements appear when the interest charges are expended.

CONVERSION

Promissory Notes of the $3\frac{1}{2}$ percent. loans of 1842-43, 1854-55 1865 1879 and 1900-01 may be transferred to any other of those loans except that no transfer to the loan of 1900-01 from any of the other loans is admissible.

It is made a condition however before any such transfer is permitted that a full half year's interest is due on the Promissory Note at the time it is presented for transfer.

The fees charged are the same as those applicable to renewal.

CONSOLIDATION AND SUB-DIVISION

Notes of the same loan on which interest has been paid up to the same date, may be consolidated or notes may be sub-divided into others of smaller denominations, but of the same loan, at the option of the proprietors, notes only being issued for Rs. 100 or multiples of Rs. 100.

The fee charged is at the rate of $\frac{1}{2}$ per cent. on the face value of the new notes received subject to a maximum of Rs. 1 for each note.

The management of the debt in England is entrusted to the Bank of England who are paid commission at the rate of £200 per million pounds in respect of the sterling debt and £400 per crore of rupees in respect of the rupee debt. The charge for the latter is however subject to a minimum of £8 000.

Quotations for $3\frac{1}{2}$ per cent. Government of India Loans.

Jany	Rupee Loan.		Sterling Loan.	
	Rs.		£	
1895	103	6 per cent.	112 $\frac{1}{2}$	per cent.
1896	105	7	117	"
1897	98		118 $\frac{1}{2}$	"
1898	95	13 "	117	"
1899	94		116 $\frac{1}{2}$	"
1900	95	10	110	"
1901	96	"	108	"
1902	95	14 "	108	"
1903	97	9 "	107	"
1904	95	2 "	103	"
1905	98	1 "	106 $\frac{1}{2}$	"
1906	97	14	105 $\frac{1}{2}$	"
1907	95	7	104	"
1908	96	3	102 $\frac{1}{2}$	"
1909	94	11	99	"
1910	98	7	98 $\frac{1}{2}$	"
1911	95	1	95 $\frac{1}{2}$	"
1912	96	2	94	"
1913	94	9	91 7-16	"
1914	96	10	85 $\frac{1}{2}$	"
1915	81 (Dec)		Nominal	

FAILURES OF INDIAN BANKS

In the Indian Year Book for 1915 a full account was given of the disastrous failures of Indian banks which commenced in 1913 and were continued throughout the greater part of the following year. Further the statistical position of all these banks was set out in tables. For complete details of this painful episode in the financial history of the country reference must be made to that volume. The results of this acute commercial crisis are summarized below and the liquidators' reports of the principal bank that failed, the Indian Specie Bank of Bombay are appended.

Fifty-seven banks failed: the authorized capital of which was Rs. 9,92,00,000 the subscribed capital Rs. 4,10,00,000 or 41 per cent. of the authorized capital and the paid up capital Rs. 1,44,80,000 or 14 per cent. of the authorized and 35 per cent. of the subscribed capital. The greatest number of failures took place in March, 1914, when eight banks failed. In November, 1913, seven banks failed. The

crisis in Northern and Western India began in September 1913 with the failure of the People's Bank of India in the Punjab which went into liquidation on the 17th November, 1913. Since then 56 banks have failed: 28 in the Punjab, 11 in Bombay, 9 in the United Provinces, 2 in Madras, 2 in the North-West Frontier Province, 2 in Delhi, and 1 each in Bangalore and Banu-chistan. The most important failures in each province were—

(1) In the Punjab—The People's Bank of India Lahore, the Peoples Bank Rawalpindi, the Orient Bank of India Lahore and the Punjab Co-operative Bank Amritsar.

(2) In Bombay—The Indian Specie Bank, the Credit Bank of India and the Kathiawar and Ahmedabad Banking Corporation.

(3) In the United Provinces—The Bank of Upper India, Meerut, the failure of which took place recently. It was reconstructed.

The following table summarises the available statistics relating to these banks —

(In thousands of Rupees)

Names of Banks	CAPITAL.			Deposits.	Date of liquidation.
	Authorised	Subscribed	Paid up.		
Punjab—					
People's Bank of India Lahore	30 00	22 00	12 53	1 25 70	17th Nov 1913
Popular Bank Rawalpindi	50 00	20 00	1 25	18 63	28th July 1914
Orient Bank of India Lahore	25 00	10 00	71	4 90	4th Sept 1914
Punjab Co-operative Bank Amritsar	20 00	10 00	8 18	4 70	Sept 1914
Bombay—					
Indian Specie Bank	2 00 00	1 50 00	74 89		4th March 1914
Credit Bank of India	1 00 00	50 00	10 00		1st Nov 1913
Kathilawar and Ahmedabad Banking Corporation	1 00 00	75 73	7 4		23rd Dec 1913
United Provinces—					
Bank of Upper India Meerut	10 00	10 00	10 00	1 83 53	October 1914.

Deposits in the Punjab amounted to Rs 300 lakhs of which the People's Bank alone accounted for Rs 126 lakhs the Punjab Co-operative Bank Rs 46 lakhs the Amritsar and Lahore Banks about Rs 28 lakhs each and the Popular Bank of Rawalpindi nearly Rs 19 lakhs. In the United Provinces the total amount of deposits in the banks as far as available was Rs 180 lakhs of which the Bank of Upper India is credited with Rs 183 lakhs. For the banks in Bombay Madras Bangalore and Baluchistan the total deposits are not available.

The Bank of Upper India has been reconstructed.

First dividends to creditors have been paid by the under mentioned Banks as follows —

Indian Specie Bank	4 As per Re 1
Bombay Banking Corporation	4 1
Credit Bank	1 1

People's Bank.—The Official Liquidators published their accounts up to September 30th 1915. These showed that petty creditors below Rs 100 and creditors in respect of the provident fund were paid off at the rate of 10 annas in full satisfaction while the creditors in respect of security deposits were given 11 annas. Altogether creditors with claims aggregating about 11 lakhs were discharged. The realisations for the year amounted to Rs 8 65 000 which the official liquidators consider satisfactory having regard to the general depression of trade and the consequent difficulties of realisation. The expenses of the liquidation were Rs 1 11 000 for the year.

Specie Bank Liquidation.

On September 8th the Official Liquidator held a meeting of the creditors and submitted

a statement of the progress of the liquidation which showed the following results —

In pursuance of the Court's order dated 19th June 1914 a call of Rs 50 per share was made on the shareholders and payments of calls up to 7th September amount to Rs 20 70 784 8-0. In many cases arrangement has been made for payment of calls by instalments on condition that if the liquidation is on the point of completion all unpaid instalments must be paid up at one month's notice. It is estimated that further recoveries on account of calls will amount to about Rs 20 lakhs.

The amount of outstanding recovered up to date is about Rs 14 91 500. It is estimated that further recoveries under this head will amount to about Rs 8 72 000.

Paris sold up to date have realised about Rs 5 44 000. There are still many paris on hand for which purchasers have not been found. These in the present depressed condition of the Paris Market are estimated to produce about Rs 15 00 000 but it must be understood that this estimate is advanced with much diffidence as the market for the paris now remaining is extremely weak. The paris sold hitherto have chiefly been suitable for the local and not for the European market.

Shares sold up to date have realised Rs. 14 17 263 of which Rs 6 30 000 for principal and Rs 7 00 000 for interest, Rs 7 00 000 in all have been retained by Raja Bahadur Shival Motilal in payment of his secured claim. Though I have always been ready to consider offers for purchase of any of our holding I have declined to throw any shares on the market, and I have only so far sold such shares as purchasers have appeared for at the price which I considered in the circumstances to be a fair market price.

The total number of creditors whose claims have been admitted in whole or in part is 18,442 and the total amount of claims admitted is Rs 1,55,30,410-14-3. Of the total number of creditors, the claims of 8,121 did not in any case exceed Rs 10 and the aggregate amount of their admitted claims was only Rs. 38,113-12-3. In these circumstances the Hon. Mr Justice Macleod, by his order dated 16th July 1915 made after due notice had been given directed that all creditors whose admitted claims do not exceed Rs 10 be paid in full. This will considerably lighten the burden and expense of the liquidation. In pursuance of that order Rs 3,65,13-1 have been paid to such creditors. In the cases 34 creditors their admitted claims amounting to Rs 8,588 5 3 have been held to be preferent and of these 13 have been paid in full, the amount so paid amounting to Rs 4,909-11-8.

On the 10th September 1914 suit No 966 of 1914 was filed in the High Court against the directors of the bank to recover the sum of Rs 1,06,64,494-0-6 being the aggregate of the losses sustained by the Company by reason of the misfeasance, neglect of duty and breach of trust of defendant 1 to 7 and the late Choonilal Dharandas Saravia and Lakhamsey Napor respectively as per particulars given and also in the alter alive to recover the sum of Rs 23,33,077 being the aggregate amount of the dividends and bonus for the years 1909 1910 1911 1912 and 1913 wrongfully paid out of capital as per particulars given. The issues in this suit were settled in July last and the cases to come on for hearing after the October vacation.

On the 23rd October 1914 suit No 1217 of 1914 was filed against the auditors of the bank to recover the sum of Rs 23,33,077 with interest being the aggregate amount of the dividends and bonus wrongfully paid out of capital through neglect of duty by the defendants in not examining the accounts and reporting and correctly certifying the result of such examination. This suit is now on the daily board.

The position of the liquidation independently of anything which may be recovered in the suits against the directors and auditors at present

	Rs	a	p
Balance in Bank of Bombay on 7-4-15	43	18	950 12 0
Balance in hand	17	458	4 1
Balance of cash with			
Mutual Muttal	2,34	000	0 0
Estimated value of pearls	1,00	000	0 0
Estimated value of shares	14,97	930	0 0
Estimated value of further recovery of calls	20	00	000 0 0
Estimated further recovery of outstandings	8	72	000 0 0
Rs	1	04	80 330 1 0

A dividend at the rate of four annas in the rupee has been declared. This will absorb about Rs. 38,71,425, leaving a further estimated balance of about Rs 62,12,000 independently of any amount that may be recovered from the

directors and auditors for further dividend after payment of the balance of preferential and small claims and the costs of the liquidation.

On December 13 there came on for hearing before the Hon Mr Justice Macleod in the Bombay High Court the claim of the Liquidator against the Directors for Rs 1,77,04,202 in respect of the acts of nonfeasance and misfeasance referred to in the Liquidator's report. It was stated by Counsel that a compromise had been arrived at with all the defendants except the fourth defendant, H H the Thakore Sahab of Morvi, and that consent terms would be submitted to the court later. The proceedings against the Thakore Sahab of Morvi are continuing.

Joint-stock enterprises in India in the last official year received a serious set back owing partly to war conditions and partly to the stringent measures of the new Indian Companies Act which came into force in April 1914. It turns compiled in the DEPARTMENT OF STATISTICS show that only 107 Companies were registered with an authorised capital of Rs 3,94 lakhs against 345 Companies and Rs 66,64 lakhs in 1913-14 and 284 Companies and Rs 12,19 lakhs in 1912-13. Five Companies were registered with an authorised capital of Rs 20 lakhs and above seven with 10 lakhs and under Rs 20 lakhs and eighteen Companies from Rs 4 lakhs to 8 lakhs. The capital invested was distributed amongst the different industries as shown below —

Joint-stock Companies registered in 1914-15.		
	Authorised capital	Percent (age)
	Rs (lakhs)	
Banking, loan and insurance	40	11
Railways	70	18
Trading	1,10	28
Cotton mills	47	12
Jute and other mills	14	4
Tea planting	18	4
Rubber planting	8	2
Coal mining	27	7
Land and building	21	5
Breweries	18	4
Sugar factories	10	3
Others	11	3
Total	3,94	100

Agriculture.

As crops depend on the existence of plant food and moisture in the soil so the character of the agriculture of a country depends largely on its soil and climate. It is true that geographical situation, the character of the people and other considerations have their influence which is not inconsiderable, but the limitations imposed by the nature of the soil and above all by the climate tend to the production of a certain class of agriculture under a certain given set of conditions.

The climate of India, while varying to some extent in degree, in most respects is remarkably similar in character throughout the country. The main factors in common are the monsoon, the dry winter and early summer months, and the intense heat from March till October. These have the effect of dividing the year into two agricultural seasons, the *Kharif* or Monsoon and the *Rabi* or Winter Season each bearing its own distinctive crops. From early June till October abundant rains fall over the greater part of the continent while the winter months are generally dry although North-Western India benefits from showers in December and January. The distribution of the rainfall throughout the year which is of considerable importance to agriculture is none too favourable, but is not quite so bad as is often represented. The rainfall is greatest at what would otherwise be the hottest time of the year, viz. mid-summer and when it is most needed. It should be remembered that in a hot country intermittent showers are practically valueless as evaporation is very rapid. The distribution of rainfall such as is common in England for example, would be of little use to Indian soils.

Soil.—For the purpose of soil classification India may be conveniently divided into two main areas in (1) The Indo-Gangetic plains, (2) Central and Southern India. The physical features of these two divisions are essentially different. The Indo-Gangetic plains (including the Punjab, Sind, the United Provinces, Bengal, Bihar and Assam) form large level stretches of alluvium of great depth. The top soil varies in texture from sand to clay the greater part being a light loam porous in texture easily worked and naturally fertile. The great depth of the alluvium tends to keep down the soil temperature. Central and Southern India on the other hand consist of hills and valleys. The higher uplands are too hot and too near the rock to be suitable for agriculture which is mainly practised in the valleys where the soil is deeper and cooler and moisture more plentiful. The main difference between the soils of the two tracts is in texture and while the greater part of the land in Northern India is porous and easily cultivated, and moist near to the surface, large stretches in Southern and Central India consist of an intractable soil called the Deccan trap sticky in the rains, hard and crumbly in the dry weather and holding its moisture at lower levels.

Agricultural Capital and Equipment.—India is a country of small holdings and the vast majority of the people cultivate patches varying in size from one to eight acres. Large holdings are practically unknown, and are mainly

confined to European planters. Farming is carried on with a minimum of capital, there being practically no outlay on fencing, buildings, or implements. The accumulation of capital is prohibited by the occurrence of famines and the high rate of interest, and extravagance of expenditure in marriage celebrations. The organization of co-operative credit which has been taken in hand by Government and which has already proved successful in many provinces will undoubtedly lead to an increase in Agricultural capital.

Equipment.—For power the ryot depends chiefly on cattle which, as a rule, are light and active but possess little hauling power. The necessary draft for crops is brought about by frequency of ploughings the result being that the soil is seldom tilled as it should be. This is not due in any way to want of knowledge on the part of the people but through want of proper equipment. The Indian Agriculturist, as a rule, possesses an intimate knowledge of the essentials of his own business and falls through lack of ways and means.

Implements. are made of wood although ploughs are usually tipped with iron points and there is a great similarity in their shape and general design. The levelling beam is used throughout the greater part of the country in preference to the harrow and roller and throughout Northern India the plough and the levelling beam are the only implements possessed by the ordinary cultivator.

In the heavier soils of the Deccan trap a cul lavating implement consisting of a single blade, resembling in shape a Dutch hoe, is much used. Seed drills and drill hoes are in use in parts of Bombay and Madras but throughout the greater part of the country the seed is either broadcasted or ploughed in. Hand implements consist of various sizes of hoes the best known of which are *kodal* or spade with a blade set at an angle towards the labourer who does not use his feet in digging, and the *khurpi* or small hand hoe. Of harvesting machinery there is none grain is separated either by treading out with oxen or beating out by hand and winnowing by the agency of the wind.

Cultivation.—Cultivation at its best is distinctly good but in the greater part of the country it has plenty of room for improvement. As in any other country success in agriculture varies greatly with the character of the people, depending largely as it does on thrift and industry. In most places considering the large population cultivation is none too good. Agriculture suffers through lack of organization and equipment. Owing to the necessity of protection against thieves in most parts the people live in villages, many of them at considerable distances from their land. Again holdings, small though they are, have been sub-divided without any regard for convenience. Preparatory tillage generally consists of repeated ploughings, followed as seed time approaches by harrowings with the levelling beam. The *Rabi* crops generally receive a more thorough cultivation than the *Kharif* a few seed-beds being necessary owing to the dryness of the growing season. Manure is

generally applied to *Kharif* crops. Seeding is either done broadcast or by drilling behind a wooden plough or drill. Thinning and spacing is not nearly so well done as it might be, and intercultivation is generally too superficial. Harvesting is done by sickle where the crops are cut whole, and there is little waste involved. On the whole the methods of the ryots, if carried out thoroughly would be quite satisfactory but it is doubtful if this could be done with the number of cattle at his disposal.

Irrigation is necessary over the greater part of the country owing to insufficient rainfall and the vagaries of the monsoon. Canal irrigation has been greatly extended over the Punjab and United Provinces and Madras through Government canals which in addition to securing the crops over existing cultivated land have converted large desert tracts into fertile areas. The Punjab and parts of the United Provinces are naturally well suited to canal irrigation owing to the frequency of their rivers. The water is generally taken off at a point a little distance from where the rivers leave the hills and is conducted to the arid plains below. The main canal splits up into diverging branches, which again subdivide up into distributaries from which the village channels receive their supplies. Water rates are levied on the matured areas of crops, Government thus bearing a part of the loss in case of failure. Much of the land is supplied by what is termed *flow* irrigation, i.e., the land is directly commanded by the canal water but a great deal has to be lifted from one to three feet the canal running in such cases below the level of the land. Rates for lift irrigation are of course lower than those for *flow*.

Irrigation canals are generally classed into (1) perennial and (2) inundation canals. Perennial canals, which give supplies in all seasons generally have their headworks near the hills, thus commanding a great range of country. Farther from the hills owing to the very gradual slope of the land and the lowness of the rivers in the cold weather perennial irrigation is difficult and inundation canals are resorted to. These canals only give irrigation when the rivers are high. As a rule in Northern India they begin to flow when the rivers rise owing to the melting of the snow on the hills in May and dry up in September.

Irrigation from Wells.—About one-quarter of the total irrigation of the country is got from lifting water from wells ranging in depth from a few feet to over fifty feet. Their numbers have greatly increased in recent years largely through Government advances for their construction. The recurring cost of this form of irrigation has, however, greatly increased owing to the high price of draught cattle and the increasing cost of their maintenance.

Tank Irrigation is common in Central and Southern India. Large quantities of rain water are stored in lakes (or tanks) and distributed during the drier seasons of the year. The system of distribution is the same as that by canal.

Manures.—Feeding of animals for slaughter being practically unknown in India, the amount of farm yard manure generally available in other countries from this source

thus does not exist. This is partially if not entirely made up for by the large numbers required for tillage and the amount of cows and buffaloes kept for milk. Unfortunately fuel is very scarce and a greater part of the dung of animals has to be used for burning. The most of the trash from crops is used up for the same purpose and the net return of organic matter to the soil is thus insignificant. In some parts cakes of oil seed are used as manures for valuable crops like tea and sugarcane but in the greater of the country the only manure applied is the balance of farm yard manure available after fuel supplies have been satisfied. Farm yard manure is particularly effective and its value is thoroughly appreciated but the people have much to learn in the way of storage of bulky manures and the conservation of urine.

Rice.—A reference to the crop statistics shows that rice is the most extensively grown crop in India, although it preponderates in the wetter parts of the country, viz., in Bengal, Bihar and Burma and Madras. The crop requires for its proper maturing a moist climate with well assured rainfall. The cultivated varieties are numerous differing greatly in quality and in suitability for various conditions of soil and climate, and the people possess an intimate acquaintance with those grown in their own localities. The better qualities are sown in seed beds and transplanted in the monsoon. Broadcast rice is grown generally in lowlying areas and is sown before the monsoon as it must make a good start before the floods arrive. Deep water rice grows quickly and to a great height and are generally able to keep pace with the rise in water level.

For transplanted rice the soil is generally prepared after the arrival of the monsoon and is worked in a paddy before the seedlings are transplanted. The land is laid out into small areas with raised partitions to regulate the distribution of the water supply. The seedlings are planted in small bunches containing from 4 to 6 plants each and are simply dibbled into the mud at distances of 6 to 12 inches apart. Where available, irrigation water is given at frequent intervals and the fields are kept more or less under water until the crop begins to show signs of ripening.

Wheat.—Wheat is grown widely throughout Northern India as a winter crop the United Provinces and the Punjab supplying about two-thirds of the total area, and probably three quarters of the total output in India. The majority of the varieties grown belong to the Species *Triticum Vulgare*. Indian wheats are generally white, red and amber coloured and are mostly classed as soft from a commercial point of view. The grains are generally plump and well filled but the samples are spoiled through mixtures of various qualities. Indian wheat is generally adulterated to some extent with barley and largely with dirt from the threshing floor and although there is a good demand in England and the Continent for the surplus produce, prices compare unfavourably with those obtained for Canadian and Australian produce. The crop is generally grown after a summer fallow and, except in irrigated tracts, depends largely on the conservation of the soil moisture from the previous monsoon.

AGRICULTURAL PRODUCE.

The following table shows the area under the principal crops in British India and their territorial distribution for 1912-13. The cropped area is always greater than the area of cultivated land, owing to double cropping. The figures (which are preliminary) represent thousands of acres.

Province	Rice	Wheat, Barley and Pulse	Other Food Grains (Chickpea, Millets) and Pulses	Total Food Grains and Pulses	Oilseeds	Sugar Crop	Cotton	July	Total cropped Area	Net cropped Area after deducting Area cropped more than once
Bengal	19,736	144	1,602	21,575	1,805	277	26	2,716	23,699	24,289
Bihar and Orissa	4,756	•	10	4,866	331	53	35	101	6,419	6,907
Assam	6,140	6,377	16,964	32,836	784	1,389	1,548		83,769	32,683
United Provinces	800	8,473	9,438	19,631	1,179	411	1,826		27,328	26,964
Punjab	44	1,031	1,040	2,406	156	32	60		2,838	2,889
E. W. Frontier Province	10,331	24	1,610	11,965	1,482	40	300		14,674	14,148
Burma	4,966	2,433	10,373	17,802	2,446	20	4,892		25,812	24,479
Central Provinces and Berar	10,678	25	18,735	29,440	8,177	162	2,667		38,344	34,181
Madras	2,768	1,840	17,218	21,876	1,876	64	4,231		29,130	28,132
Ramsey and Sind	83	29	222	333	97		50		548	603
• Minor Areas										
• Total	60,380	27,476	5,844	70,317	12,675	2,492	16,006	2,817	212,550	194,006

* Figures for Minor Areas are for 1912-13.

Rains in January and February are generally beneficial but an excess of rainfall in these months usually produces rust with a diminution of the yield. On irrigated land 2 to 4 waterings are generally given. The crop is generally harvested in March and April and the threshing and winnowing go on up till the end of May. In good years the surplus crop is bought up at once by exporters and no time is lost in putting it on the European market as other supplies are at that time of year scarce. In years of famine the local price is generally sufficiently high to restrict exports.

The Millets.—These constitute one of the most important group of crops in the country supplying food for the poorer classes and fodder for the cattle. The varieties vary greatly in quality height and suitability to various climatic and soil conditions. Perhaps the two best known varieties are Jowar (*Sorghum vulgare*) tall growing with a large open head, and Bajra with a close rat-tail head and thin stem. Generally speaking the jowars require better land than the bajras and the distribution of the two crops follows the quality of the soil. Neither for jowar nor bajra is manure applied and cultivation is not so thorough as for wheat, the main objective being to produce a fine seed bed. As the crop is generally sown in the beginning of the monsoon it requires to be thoroughly weeded. It is often grown raised with the summer pulses and other crops in which case thin seedlings are resorted to. The subsidiary crops are harvested as they ripen either before the millet is harvested or afterwards. The produce is consumed in the country.

Pulses are commonly grown throughout India and the grain forms one of the chief foods of the people. Most kinds do well but are subject to failure or shortage of yield owing to a variety of circumstances among which rain at the time of flowering appears to be one of the most important. They are therefore more suitable to grow as mixed crops especially with cereals, and are generally grown as such. Being deep rooted and practically independent of a Nitrogen supply in the soil they withstand drought and form a good alternation in a cereal rotation. The chief crops under this heading are gram, masur, mung and moth, gram forming the main winter pulse crop while the others are grown in the summer. The pulses grow best on land which has had a good deep cultivation. A fine seed bed is not necessary. For gram especially the soil should be loose and well aerated. Indian pulses are not largely exported although they are used to some extent in Europe as food for dairy cows.

Cotton is one of the chief exports from India and the crop is widely grown in the drier parts of the country. The lint from Indian cotton is generally speaking short and coarse in fibre and unsuited for English mills. Japan and the Continent are the chief buyers. The crop is grown during the summer months and requires a deep moist soil and light rainfall for its proper growth. Rain immediately after sowing or during the flowering period is injurious. In parts of Central and Southern India the seed is sown a line and the crop receives careful attention but over

Northern India it is sown broadcast (often mixed with other crops) and from the date of sowing till the time of picking is practically left to itself. The average yield, which does not amount to more than 400 lbs. per acre of seed cotton could doubtless be greatly increased by better cultivation.

Sugarcane.—Although India is not naturally suited for sugarcane growing, some 3½ millions of acres are annually sown. The crop is mostly grown in the submontane tracts of Northern India. The common varieties are thin and hard yielding a low percentage of juice of fair quality. In India white sugar is not made by the grower who simply boils down the juice and does not remove the molasses. The product called gur or gul is generally sold and consumed as such, although in some parts a certain amount of sugar making is carried on. The profits however are small owing to the cheapness of imported sugar and there appears to be some danger to the crop if the present taste for gur were to die out. The question has been taken up by Government and a cane breeding station has been recently opened near Coimbatore in Madras with the object of raising seedling cane and otherwise improving the supply of cane sets. A number of sugar factories of a modern type have been set up within recent years in Bihar and the United Provinces. The chief difficulty seems to be the obtaining of a sufficiently large supply of canes to offset the heavy capital charges of the undertakings.

Oilseeds.—The crops classified under this heading are chiefly sesamum, linseed and the cruciferous oilseeds (rape, mustard etc.). Although oilseeds are subject to great fluctuation in price and the crops themselves are more or less precarious by nature—they cover an immense area.

Linseed requires a deep and moist soil and is thus grown chiefly in Bengal, Bihar, the United Provinces and the Central Provinces. The crop is grown for seed and not for fibre and the common varieties are of a much shorter habit of growth than those of Europe. The yield varies greatly from practically nothing up to 500 or 600 lbs. of seed per acre. The seed is mainly exported whole but a certain amount of oil pressing is done in the country.

Sesamum (Or Gingelly) is grown mostly in Peninsular India as an autumn or winter crop. The seed is mostly exported.

The Cruciferous Oilseeds form an important group of crops in Northern India where they grow freely and attain a fair state of development. They are one of the most useful crops in the rotation. They occupy the land for a few months only, and owing to their dense growth leave the soil clean and in good condition after their removal. A number of varieties are grown differing from each other in habit of growth, time of ripening and size and quality of seed. The best known are rape, toria, and sarson. The crop is generally sown in September or early October and harvested from December to February. The crop is subject to the attack of aphid (green fly) at the time of flowering and sometimes suffers considerable damage from this pest. The seed

AGRICULTURAL STATISTICS

	1906-7	1907	1908	1909	1910	1911	1912	1913
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
Net Area by professional survey	583 739 245	619 458 134	693 155 593	624 338 714	618 581 090	618 605 038	618 927 115	
Area under forest	31 748 198	37 425 708	52 489 268	81 180 511	80 018 076	80 881 369	82 460 581	
Not available for cultivation	137 184 248	151 521 025	157 639 034	157 627 145	149 904 347	149 905 179	146 386 593	
Cultivable waste other than fallow	108 606 580	118 288 334	113 066 521	114 665 202	115 086 768	114 700 370	115 024 887	
Fallow land	39 015 421	34 208 922	50 153 956	45 335 412	45 948 906	64 982 524	48 760 388	
Net area sown with crops	214 025 596	210 863 711	218 070 911	222 911 547	223 064 601	215 981 683	224 165 902	
Area irrigated	36 651 779	38 919 573	42 488 724	41 581 436	40 895 474	40 079 142	45 539 074	
Area under Food grains --								
Rice	73 541 198	75 980 682	7, 900 536	78 730 842	73 524 801	70 636 887	78 762 483	
Wheat	2 307 146	2 254 084	2 409 083	25 730 078	24 865 523	25 451 894	26 661 196	
Barley	7 700 109	7 629 550	8 002 083	8, 104 763	7 840 522	8 452 503	7 420 385	
Jowar	20 781 628	21 943 751	24 780 144	21 801 934	21 184 104	18 386 382	20 967 730	
Bajra	15 033 738	15 131 250	16 007 989	16 303 400	15 540 235	13 082 938	18 263 801	
Ragi	1 567 712	4, 639 472	4 484 399	4 545 355	4 288 027	4, 296 207	4, 455 537	
Maize	6 171 715	6, 296 376	6, 784 224	6 837 925	6 811 087	5 591 340	6 816 089	
Gram	1 411 948	6 816 818	11, 264 479	13 153 400	13 946 210	14 128 881	13 423 548	
Other grains and pulse	2, 371 837	29 586 738	31 534 019	31, 396 852	28 080 948	29 807 101	30, 306 560	
Total food grains	105 117, 216	186 369 792	196 837 237	203 864 289	204 103 418	195 097 434	201, 372, 878	
Area under other food-crops (including gardens, orchards, etc.)	7 274 816	7 489 186	7 193 324	7 448 923	7 407 584	7 582 432	8, 188 469	
Area under--								
Sugar	2, 62, 878	2, 87 965	2 408 212	2 445 033	2 540 541	2, 665 770	2 713 085	
Coffee	94 050	99 511	97 283	94 405	92 874	94 576	91 918	
Tea	505, 417	513 437	520, 487	525 729	532, 703	548, 566	557, 486	

is very subject to injury from rain and great care has to be taken in the drying. The produce is largely exported whole, but there is a considerable amount of local oil-pressing—the cake being in demand for feeding purposes.

Jute.—Two varieties of the plant are cultivated as a crop *Capalanda* and *Oklorus*. *Jute* growing is confined almost entirely to Eastern Bengal, in the Ganges-Brahmaputra Delta. The crop requires a rich moist soil. Owing to river inundation this part of India receives a considerable alluvial deposit every year and the land is thus able to sustain this exhausting crop without manure. The crop is rather delicate when young, but once established requires no attention, and grows to a great height (10 to 11 feet). Before ripening the crop is cut and retted in water. After about three weeks submergence the fibre is removed by washing and beating. At the present high prices of jute it may be considered to be the best paying crop in India.

Tobacco is grown here and there all over the country chiefly however in Bengal, Bihar, Bombay, Madras and Burma. Of two varieties cultivated *Nicotiana Tabacum* is by far the most common. Maximum crops are obtained on deep and moist alluvial soils and a high standard of cultivation including liberal manuring is necessary. The crop is only suited to small holdings where labour is plentiful as the attention necessary for its proper cultivation is very great. The seed is germinated in seed beds and the young plants are transplanted when a few inches high, great care being taken to shield them from the sun. The crop is very carefully weeded and hoed. It is topped after attaining a height of say 2 ft., and all suckers are removed. The crop ripens from February onwards and is cut just before the leaves are become brittle. By varying the degree of fermentation of the leaves different qualities of tobacco are obtained. A black tobacco is required for *Hooka* smoking and this is the

most common product but a certain amount of yellow leaf is grown for cigar making.

Live-stock consist mainly of cattle, buffaloes and goats, horses not being used for agricultural purposes. Sheep are of secondary importance.

For draught purposes cattle are in more general use than buffaloes especially in the drier parts of the country but buffaloes are very largely used in the low lying rice tracts. For dairying buffaloes are perhaps more profitable than cows as they give richer milk and more of it, but they require more feeding. The poorer people depend largely on the milk of goats of which there are an enormous number throughout India. Cattle breeding is carried on mainly in the non-cultivated tracts in Central and Southern India, Southern Punjab and Rajputana where distinct breeds with definite characters have been preserved. The best known draught breeds are Banal, Mellore, Amritmahal, Gujrat, Malvi, and the finest milk cows are the Sahiwal (Punjab) Gir (Kathiawar) and Sind. Owing however to the encroachment of cultivation on the grazing areas well bred cattle are becoming scarce and some of the breeds are threatened with extinction. Efforts to improve the quality of the cattle in the non-breeding districts by the use of selected bulls have hitherto been frustrated by the promiscuous breeding which goes on in the villages.

Dairying.—Though little noticed dairying forms a very large indigenous industry throughout India. The best known products are native butter (ghee) and cheese (dahi). During recent years a considerable trade in tinned butter has sprung up in Gujrat (Bombay Presidency). While pure ghee and milk can be procured in the villages in the towns dairy products can scarcely be bought unadulterated.

AGRICULTURAL PROGRESS

The Agricultural Departments in India as they now exist may be said to be a creation of the last ten years. There have for a good many years past been experimental farms under official control in various parts of India, but they were in the past to a large extent in the hands of amateurs, and the work of the Agricultural Departments, with which all the major provinces were provided by about 1884, was in the main confined to the simplification of revenue settlement procedure and the improvement of the land records system. In 1901 the appointment of an Inspector General of Agriculture gave the Imperial Agricultural Department for the first time an expert head, and placed the Government of India in a position to enlarge the scope of their own operations and to co-ordinate the work being done on independent lines in various provinces. At that time the staff attached to the Government of India consisted of an Agricultural Chemist and a Cynopagide Botanist, while trained Deputy Directors of Agriculture were employed only

in Madras, Bombay and the United Provinces and the Economic Botanist in Madras was the only provincial representative of the more specialised type of appointments. Within the next few years a number of new appointments were made, so that by March 1905 there were altogether 20 sanctioned agricultural posts, of these seven were Imperial, including a number of specialist appointments attached to the Agricultural Research Institute and College, the establishment of which at Pusa in Bengal was sanctioned in 1903. A great impetus was given to the development of the Agricultural Departments by the decision of the Government of India in 1905 to set apart a sum of 80 lakhs (£128,000) a year for the development of agricultural experiment, research, demonstration and instruction. Their ultimate aim, as then expressed, was the establishment of an experimental farm in each large tract of country in which the agricultural conditions are appreciably homogeneous, to be supplemented by numerous small demonstration farms, the

AGRICULTURAL STATISTICS OF BRITISH INDIA

	1906-7		1907-8	1908-9		1909-10	1910-11	1911-12	1912-13
	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres	Acres
Area under Oilseeds—									
Linsseed	2,514,884	1,401,220	1,981,826	2,116,281	2,512,082	2,512,082	2,512,082	2,512,082	2,512,082
Sesamum (H)	3,008,328	4,237,725	4,232,568	4,740,092	4,232,568	4,232,568	4,232,568	4,232,568	4,232,568
Rape and Mustard	4,231,554	3,237,455	3,837,123	4,083,660	3,837,123	3,837,123	3,837,123	3,837,123	3,837,123
Other Oilseeds	3,310,599	3,499,570	4,004,082	3,675,084	3,911,923	3,911,923	3,911,923	3,911,923	3,911,923
Total Oilseeds	13,965,365	12,485,973	14,105,598	14,625,037	14,625,037	14,625,037	14,625,037	14,625,037	14,625,037
Area under—									
Cotton	1,771,268	13,908,269	12,938,974	13,173,188	14,447,890	14,447,890	14,447,890	14,447,890	14,447,890
Jute	3,423,538	3,742,945	3,893,453	3,742,945	3,742,945	3,742,945	3,742,945	3,742,945	3,742,945
Other fibres	938,584	416,905	248,854	324,600	789,604	789,604	789,604	789,604	789,604
Indigo	448,584	405,905	248,854	248,854	248,854	248,854	248,854	248,854	248,854
Opium	614,879	538,042	416,918	374,208	383,355	383,355	383,355	383,355	383,355
Tobacco	1,009,210	974,458	953,712	1,018,352	1,067,682	1,067,682	1,067,682	1,067,682	1,067,682
Food crops	4,547,723	4,908,324	4,627,678	4,748,809	4,681,742	4,681,742	4,681,742	4,681,742	4,681,742
Estimated yield* of—									
Rice (Channeled)	427,743,800	379,211,300	390,979,900	367,138,000	557,838,000	557,838,000	557,838,000	557,838,000	557,838,000
Wheat	8,481,700	6,125,100	7,639,000	8,638,000	10,040,500	10,040,500	10,040,500	10,040,500	10,040,500
Coffee †	17,777,032	33,042,427	27,648,857	24,784,750	24,784,750	24,784,750	24,784,750	24,784,750	24,784,750
Tea †	241,403,510	244,968,973	247,864,750	247,864,750	247,864,750	247,864,750	247,864,750	247,864,750	247,864,750
Cotton	4,884,000	3,762,401	4,200,300	4,200,300	4,200,300	4,200,300	4,200,300	4,200,300	4,200,300
Jute	8,206,400	9,817,800	9,817,800	9,817,800	9,817,800	9,817,800	9,817,800	9,817,800	9,817,800
Linsseed	423,200	163,200	167,500	1,218,400	1,238,300	1,238,300	1,238,300	1,238,300	1,238,300
Rape and Mustard	1,063,100	828,700	984,300	1,218,400	1,238,300	1,238,300	1,238,300	1,238,300	1,238,300
Sesamum (H)	271,700	282,700	495,700	500,300	503,300	503,300	503,300	503,300	503,300
Groundnut	65,700	52,800	38,800	39,800	46,000	46,000	46,000	46,000	46,000
Yam	2,206,300	2,046,900	1,672,900	2,137,100	2,217,800	2,217,800	2,217,800	2,217,800	2,217,800
Cane-sugar									

* The average of crops given in this table is for British India only but the estimated yield includes the crops in certain of the Native States

† The statistics of the production of tea are for calendar years those for coffee were for calendar years before 1908-9

‡ Return of production discontinued

creation of an agricultural college teaching up to a three years course in each of the larger provinces and the provision of an expert staff in connection with these colleges for purposes of research as well as education. The eventual cost, it was recognised, would largely exceed 20 lakhs a year. The Pusa Research Institute and College alone has cost nearly £150,000 including equipment. A part of the cost was met from a sum of £30,000 placed at Lord Curzon's disposal by Mr. Phipps an American visitor to India. This example of munificence has recently been followed by Sir Sassoon J. David, who placed the sum of £53,300 at the disposal of the Government of Bombay for the establishment of vernacular agricultural schools and the improvement of agricultural methods, in commemoration of the visit of Their Imperial Majesties to India.

Record of Progress

At the beginning of 1912 there were over 40 posts in the Indian Agricultural Service by which that of Inspector General which was abolished at the end of the year 1911-12, the rapid advance of the provincial departments having rendered its continuance unnecessary. The officers serving directly under the Government of India included the Director of the Pusa Institute who was also Principal of the Agricultural College, a cotton specialist, two mycologists, three entomologists, two agricultural chemists, and an economic botanist. Some of these were supernumerary officers undergoing training. The provincial agricultural departments vary in strength. Generally speaking each of the larger provinces has at least a Deputy-Director of Agriculture (most provinces have two), an Agricultural Chemist, and an Economic Botanist. In several provinces the principalship of the Agricultural College is a separate appointment and among the remaining officers are a fibre expert in Eastern Bengal and Assam and a scientific officer for planting industries in Southern India. In Madras the Government of Madras have also a mycologist and an entomologist of their own. The posts so far referred to have hitherto necessarily been filled almost exclusively by the appointment of trained specialists from the United Kingdom. There are also in the various provinces a considerable number of locally appointed Assistant Professors (in the Agricultural Colleges), Assistant Agriculturists and Entomologists, Agricultural Inspectors, Superintendents of Farms, etc. and subordinate officers. It is an essential part of the scheme adopted that facilities for the best agricultural training shall be made available in India in order that the country may become self-supporting so far as possible in regard to the scientific development of agricultural methods on lines suited to local conditions. Provincial agricultural colleges which are also research stations have within the last few years been established in Madras, Bombay, Bengal, the United Provinces, the Punjab and the Central Provinces. The Central College at Pusa is intended to provide for more advanced training, and gives also short practical courses in subjects not at present taught in the pro-

vincial colleges. The Provincial Directors of Agriculture have so far been selected from the ranks of the Indian Civil Service and they still in some provinces have other functions besides the supervision of the Agricultural Department, but in all the larger provinces except the United Provinces the appointment of Director of Agriculture has since 1905 been separated from that of Director of Land Records.

Machinery

The rapid extension in India in recent years of the use of machinery in connection with agriculture and irrigation has created a demand for expert assistance to meet which Agricultural Engineers have since the end of the period under review been appointed in Bombay and the United Provinces to advise cultivators as to engines, pumps, threshing machinery, etc. An important advance in the direction of bringing the provincial agricultural departments more closely into touch with one another was made in 1905 by the creation of the Board of Agriculture. The Board, which includes the Imperial and provincial experts, meets annually to discuss the programme of agricultural work and agricultural questions generally and makes recommendations which are submitted to the Government of India for consideration.

Work of the Departments

The work of the Agricultural Department has two main aspects. On the one hand by experiment and research improved methods or crops are developed or the means of combating a pest are worked out. On the other hand, acclimated improvements must be demonstrated and introduced as far as possible into the practice of the Indian cultivator. There is an essential difference between agricultural departments in the East and in the West in that whereas the latter have arisen to meet the spontaneous demands of the cultivators of the soil the former are entirely the creation of a government anxious to give all the assistance it can to its agricultural subjects. The demand for improved agriculture has not in India except in special cases come from the cultivator and it is necessary for the Department to put forth every effort first to ascertain the needs of the cultivators and then to demonstrate how they can most effectively be met. It is only a few years since work on modern lines was commenced by the reorganised agricultural departments and, in the first place, a great deal of spadework had to be performed.

Cotton

Cotton from the first received much of the attention of the new departments. Very striking results have already been achieved, and more particularly with Cambodia and other exotic varieties. The second line of improvement is the separation and selection of indigenous varieties. In Madras the efforts of the Agricultural Department have resulted in the spread of the local improved variety called *Karupany* in the Tirunelveli District and white-seeded *Tellapathi* cotton in Kurnool.

AREA CULTIVATED and UNCULTIVATED in 1912-13, in ACRES.

Administrations.	Area according to Survey	DEDUCT			NET AREA	
		Feudatory and Tributary States	Area for which no Returns exist	Total	According to Survey	According to Village Papers
Bengal	53 931 504	3 451 520		3 451 520	50 479 984	50 479 984
Bihar and Orissa	71 418 217	18 334 720		18 334 720	53 083 497	53 083 497
Assam	39 275 494	7 069 920		7 069 920	31 305 574	31 305 574
United Provinces (Agra)	57 372 987	4 345 232		4 345 232	53 027 755	52 805 615
United Provinces (Oudh)	15 806 720				15 806 720	15 480 479
Punjab	86 367 319	24 511 384		24 511 384	61 855 935	60 887 559
North-West Frontier Province	8 578 499	140 800		140 800	8 437 699	8 574 667
Upper Burma	57 802 617	3 997 722		3 997 722	53 804 895	53 804 895
Lower Burma	54 909 711				54 909 711	54 909 711
Central Provinces	74 532 216	19 980 343		19 980 343	62 551 873	62 764 428
Berar	11 328 709				11 328 700	11 375 801
Ajmer Merwara	1 770 921				1 770 921	1 770 921
Coorg	1 012 260				1 012 260	1 012 260
Madras	97 440 741	6 378 899		6 378 899	91 061 842	89 542 620
Bombay	85 620 515	36 979 249		36 979 249	48 641 266	48 641 515
Sind	34 143 122	3 872 000		3 872 000	30 271 122	30 271 122
Pargana Manipur*	81 382				31 382	31 382
Total	748 863,655	1,29,941,740		129,941,740	618,921,915	616,737,740

Administrations	CULTIVATED		UNCULTIVATED		Forests
	Net Area actually Cropped	Current Fallows	Cultivable Waste other than Fallow	Not available for Cultivation	
Bengal	25 954 900	4 914 369	5 201 098	10 152,627	4,256,990
Bihar and Orissa	27 122,100	3 388,166	7 898,380	9 933,802	4 741 040
Assam	6 825 313	2,592,200	15 034 513	5 510 500	2,343,028
United Provinces (Agra)	26 784 228	2 172,519	7 484 283	7 645 164	8 717 431
United Provinces (Oudh)	9 278 438	384 862	2 776 589	2,227 387	613 183
Punjab	24 159 016	3 577 685	17 416 035	12 338 292	3,348,481
North West Frontier Province	2 140 107	697 875	2,734 928	2,627 083	374,976
Upper Burma	4 963 703	4 20, 274	10 762 019	21 583 039	12,238,310
Lower Burma	9 034 360	610 450	14 720 118	23,573 682	6 970,292
Central Provinces	17 683,822	2 566 032	13,505 064	4 097,175	14 912,835
Berar	6 938 930	1 19, 970	181 368	886 442	2,182,093
Ajmer-Merwara	256,461	343 005	127 267	853,464	90 732
Coorg	140 253	162,893	20 870	330 449	357 795
Madras	34 605 808	8,210 373	9 963 995	23 947 400	12,314 759
Bombay	25 180 293	8 338 918	1 525,183	6 021 149	7 375 752
Sind	3 990 570	5 197 596	5 685 387	14,600 919	790 660
Pargana Manipur*	7 293	292	6 894	876	16,025
Total	224,166,602	48 760,368	115 024,387	146,386,582	82,400 261

* A British district in Central India.

both of these varieties having been selected from among the mixtures ordinarily grown in the districts. A system of seed distribution was gradually built up and now after five or six years work, there is a vast area under Karamany. The Department supplies pure seed to contract seed growers and buys the seed cotton from these men gins it, and arranges the distribution of seed through village depots. In Bombay two have been selected as the best out of many hybrids and pure line cottons bred and tried for many years on the Surat farm. They give a distinct advantage both in quantity and quality over the ordinary local cotton, and promise to sell at rates 5 per cent. higher. In another part of the province arrangements are being made to distribute on a large scale seed of another improved form, which can be grown it is estimated, over 1,800,000 acres. In the Southern Maratha Country Broom cotton introduced by the Department is gaining favour. There is said to be scope for 250,000 acres and the increased profit to the cultivator is estimated at £1 or more per acre. In the Central Provinces also two indigenous varieties have been selected. In the United Provinces seed of a superior variety is being distributed. Wheat also has been the subject of prolonged experiments. One of the first results of the investigations carried out at Pusa, was the demonstration of the fact that varieties with milling and baking qualities similar to those of the best wheats of the English market could be grown to perfection in Bihar. By the application of modern methods of selection and hybridisation these high grain qualities were successfully combined with high yielding power, rust-resistance and strong straw.

Another crop with which considerable success has been attained is Ground-nut. The cultivation of which had at the beginning of the decade fallen off owing partly to the prevalence of a fungoid disease and partly to deficient rainfall. Exotic varieties with a better yield have been introduced in Bombay and in Burma cultivation has advanced with extraordinary rapidity.

Another success of marked importance achieved by the efforts of the provincial agricultural departments is the introduction of **agricultural implements and machinery** suited to the conditions of different provinces. Information and assistance in regard to the choice of implements suitable for various conditions has under present circumstances to be interpreted and brought home to Indian cultivators by a more direct agency than business firms and the agricultural departments have therefore to do a good deal of this work. They have succeeded already in introducing various kinds of implements in different parts of the country. Every assistance is given in the use and repair of implements recommended. Up to the present the departments perform to a certain extent the functions of dealers in implements but it is becoming difficult to control the work as the area covered by the introductions is gradually becoming large and a need for the development of co-operative societies is felt. In Bombay, the Department has introduced ploughs of various patterns and is selling a larger number each year. In some provinces iron ploughs are becoming very popular. The possibilities of improved harrows, cultivators and clod-crushers are also receiving attention.

TEN YEARS' PROGRESS.

In 1915 Mr James Mackenna, I.C.S. Director of Agriculture in Burma published a brochure in which he reviewed the progress in Agriculture in India in the last ten years. In this reviewing the effects of the work of the new Agricultural Departments he said—

The Agricultural Departments are now regarded as an integral and important part of the administration. The few European and Indian workers of 1906—158 in all—now number 806. Their labours are concentrated and co-ordinated; they now work on general schemes of development. Farms and demonstration plots, formerly scattered and disconnected have increased from 35 to 874 and work on them is concentrated on the main problems and not dissipated as used to be the case over a number of subsidiary and unimportant enquiries.

As a result the Department can claim credit for a great advance in general agricultural practice. Cultural and material problems have in many cases been solved. Local machinery has been improved and adapted or better implements introduced. Real and substantial work has been done on the improvement of such important crops as wheat, cotton, rice, sugar cane and tobacco. The general principles of

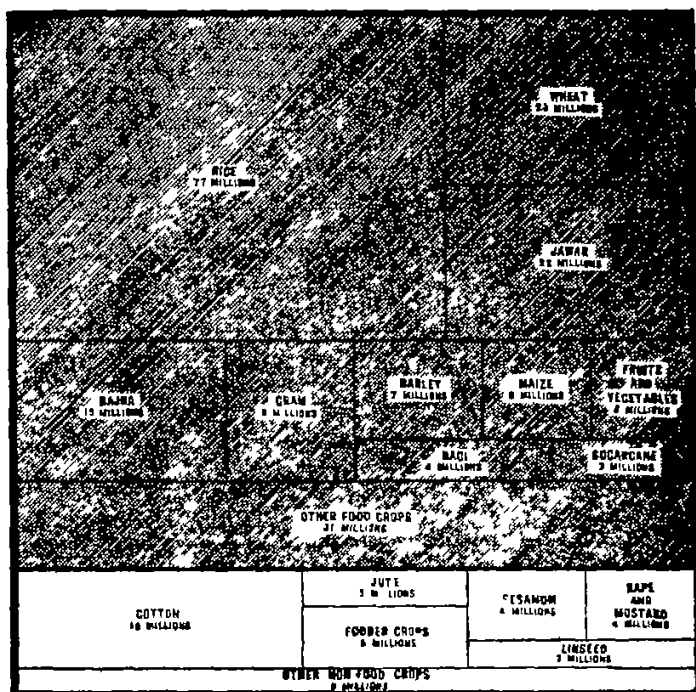
crop improvement have naturally been dealt with first but given more men and more money all the crops of India will be taken up.

Money spent on agriculture is a good investment but material results are difficult to gauge. Many factors have to be considered. A whole industry threatened by destruction may be saved by the discovery and application of preventive and protective methods. The treatment of the palm industry and areca-nut industry of Madras and the protection of the potato crop of Patna are illustrations of this kind. Again there are the direct gains following the introduction of new or improved crops, implements, well boring and improved methods of cultivation. We may at a conservative estimate claim that the increase in the value of the agricultural products of India as a result of the labours of its Agricultural Departments is already about 8½ crores of rupees annually, or over £2,300,000. This is the result of only ten years work and it must be remembered that every year will show a progressive increase. On the debit side we have an annual expenditure on agriculture which has risen from Rs. 8,81,194 or £28,762 in 1904-05 to Rs. 51,30,552 or £15,42,043 in 1913-14.

TOTAL AREA CROPPED IN 1913-14.

(BRITISH INDIA)

Total Area cropped	247 million acres.
Area under food crops (shaded)	203 million acres
Area under non food crops (unshaded)	44 million acres



NOTE.— Other food crops are minor food grains, condiments and spices and miscellaneous food crops.

Other non food crops are oilseeds other than sesamum, linsseed, rape and mustard, other than cotton and jute, dyes, drugs and narcotics and miscellaneous non-food crops.

AREA UNDER IRRIGATION IN 1912-13 IN ACRES

Administrations	Total Area Cropped.	AREA IRRIGATED			
		By Canals.		By Tanks	By Wells
		Government.	Private		
Bengal	30 498,300	113 763	218 321	816 340	20 160
Bihar and Orissa	33,178,400	971 176	632 683	1 219 384	721 866
Assam	6 275 825	978	107 458		
United Provinces (Agra)	32,312,902	2,234 207	22 530	46 700	3,994 084
United Provinces (Oudh)	12,118,835				1 523 596
Punjab	27 510 022	7 026 031	493,435	12,214	3 601 582
North-West Frontier Province	2 549 231	241 079	454 516		92,225
Upper Burma	5 367 014	480 745	187 759	190 286	14,193
Lower Burma	9 039 333	230	23 099	2,775	2,433
Central Provinces	19 434 783	22,228	1,651	765,207	62,914
Berar	6 982,079				177
Ajmer Merwara	395 298			32,731	90 100
Coorg	141 343	2,610		1 750	
Madras	59 119 874	3,559 796	236,930	3 613 113	1 582,270
Bombay	26 138,281	186,691	17 719	123 886	578 657
Sind	4 287 061	2,924,783	78,522	428	36 934
Pargana Manipur	7 650				207
Total	255 556 431	17 764 817	2,492,623	6 825 189	12,350 801

Administrations	AREA IRRIGATED		CROPS IRRIGATED *				
	Other Sources	Total Area Irrigated	Wheat	Other Cereals and Pulses	Miscellaneous Food Crops	Other Crops	
Bengal	1 065 741	2,224,125	23 394	1 997 484	599 239	141 109	
Bihar and Orissa	1 254 859	4,804 770	254,110	2 918 683	1 524 985	300 623	
Assam	247 482	355 918		840 965	14 234	698	
United Provinces (Agra)	1 146 862	7 344 283	2 771 337	3 783 966	132 340	1 617 059	
United Provinces (Oudh)	878 696	2 202 061	824 404	1 165 793	40 525	283,962	
Punjab	166 622	11 302,184	4,694 007	2,735 057	466 259	3 672 552	
North-West Frontier Province	85 795	873 615	272 211	410 245	53,205	142,672	
Upper Burma	96 787	967 770	157	960 173	42,554	106	
Lower Burma	95 319	123 856		110 088	14 034		
Central Provinces	38,894	905 694	1,561	960 527	305 310	4,496	
Berar	603	31 551	8 193	1 575	20,425	1,358	
Ajmer Merwara	92	122,923	11 807	69 022	27 369	34,392	
Coorg		4,860		4 360			
Madras	903 441	9 897 750	4 122	9 901 631	1 185 141	488,887	
Bombay	96 880	1 003 733	200 609	567 285	160 089	180 710	
Sind	223 381	3 274 044	403 230	2,844 542	48,268	866,780	
Pargana Manipur		207	158	43	6		
Total	6 106,144	45,539,074	9,084,400	28,091,394	4,643,968	7 339,417	

* Includes the area irrigated at both harvests

CROPS UNDER CULTIVATION IN 1912-13 IN ACRES

Administrations	Rice	Wheat.	Barley	Jawar or Cholera (Great Millet)	Bajra or Cumbu (Spiked Millet).	Ragi or Marua (Millet)
Bengal	21 108 000	146 800	94 800	3 200	7,200	16,300
Bihar and Orissa	16 074 900	1 177 400	1 332,700	122,300	93,100	983 100
Assam	4 646,378	117	524			1 927
United Provinces (Agra)	4 337 160	5 435 482	3 480,581	1 850 920	2 183,831	154,081
United Provinces (Oudh)	2 474,835	2 007 004	1 162 758	318 441	484 608	66 771
Punjab	741 901	8 766 889	1,006 715	1 212 222	2 678 835	20,362
N. West Frontier Province	45 000	927 125	214 679	94 560	204 540	
Upper Burma	2 095 713	25 597		516 024	239 952	
Lower Burma	8 196 042			10	5	
Central Provinces	4 966,418	9 304 604	10,328	1 621 720	48 662	13,543
Benar	31 397	304 961	60	2,268 670	104 845	88
Ajmer Merwara	409	27,137	38 580	61 346	31 840	26
Coorg	83 032					5 081
Madras	10 943 735	18,327	3 480	3 219 733	3 608 349	2 599 958
Bombay	1 960 110	1 261 941	28 976	7 074 559	5 496 435	636,237
Sind	1 087 525	4,6 882	20 169	603 404	1 140 806	613
Pargana Manipur	136	1 629	3	2 584	39	
Total	78 75,493	23 261 18	7 420 335	20 967 730	18,268 801	4 455 517

Administrations	Maize	Gram (pulse)	Other Food Grains and Pulses	Total Food Grains and Pulses	Lin seed	TB Jinili or Ses amum
Bengal	97 400	184 100	1 845 300	23 060 600	199,800	251,200
Bihar and Orissa	1 771,800	1 386 500	5 688 000	29 484 800	677,200	228 400
Assam	18 970	915	92,544	4 781 379	12 815	10 470
United Provinces (Agra)	1 378 567	4 022 708	4 336 632	27 132 563	340 169	297,197
United Provinces (Oudh)	829 463	1 484 783	2 285 450	11 112 108	103 314	19 996
Punjab	1 097 989	3 400 919	1 481 810	20 405 840	43 313	157 928
N. West Frontier Province	418 583	168 963	131 453	2 194 904	15	9 457
Upper Burma	160 084	33 004	98 055	3 158,458		1 142 074
Lower Burma	24,085	1 381	9	8,232 133		72 909
Central Provinces	147 730	1 003 026	3 781,391	14 905 429	1 410 879	694 917
Benar	1,961	113 034	645 118	3 488,083	98 155	83 044
Ajmer Merwara	68,484	9 257	40 077	296,656	1 198	33,309
Coorg		276	1 505	89,884		210
Madras	133 930	134 493	8 076 612	30 739 617	22,466	812,870
Bombay	163 865	469 349	2 087 776	19 709 248	166 865	280,313
Sind	1 501	75 409	228 738	3,616 187	34	68,634
Pargana Manipur	1,081	650	60	6 182	54	440
Total	6,316,089	12 422 843	30 907,560	201,372 578	3 125 067	4 164 045

CROPS UNDER CULTIVATION IN 1913-14 IN ACRES.

Administrations.	Rape and Mustard.	Other Oil Seeds.	Total Oil Seeds.	Condiments and Spices.	Sugar Cane.	Sugar Other
Bengal	1,325,400	45,800	1,822,900	143,300	221,800	49,800
Bihar and Orissa	724,800	543,700	2,173,900	92,700	270,700	300
Assam	298,416	134	121,646	2,880	35,928	
United Provinces (Agra)	75,144	68,120	770,630	98,256	1,174,637	
United Provinces (Oudh)	72,487	1,804	247,601	14,132	249,407	
Punjab	887,783	4,668	1,093,690	37,871	367,873	
N. West Frontier Province	79,620	40	59,142	5,210	23,879	
Upper Burma	281	*108,970	1,336,335	61,641	1,046	24,228
Lower Burma	3,351	*5,727	81,987	21,523	11,168	1,047
Central Provinces	42,229	888,604	2,596,629	63,934	24,905	
Betar	441	58,392	241,032	22,936	1,090	
Ajmer-Merwara		1,231	35,738	2,043	210	
Coorg	18	16	284	3,037		
Madras		2,107,153	2,042,490	632,436	98,888	87,897
Bombay	4,286	571,409	982,484	183,246	53,728	483
Mad	41,237	149,261	259,150	8,862	4,830	2,140
Pargana Manipur		381	871			
Total	3,555,800	4,091,368	14,935,780	1,790,237	2,546,522	165,569

Administrations	Cotton	Jute	Other Fibres.	Total Fibres	Indigo	Other Dyes.
Bengal	26,200	2,927,100	35,900	2,989,200	1,000	
Bihar and Orissa	87,200	298,500	20,900	406,600	90,400	9,800
Assam	36,052	98,351	511	134,714		16
United Provinces (Agra)	1,089,440		115,187	1,174,579	22,930	1,186
United Provinces (Oudh)	59,932		24,064	83,997	4,591	210
Punjab	1,442,029		34,787	1,49,716	98,089	2,027
N. W. Frontier Province	55,104		738	55,842	16	
Upper Burma	208,787		340	209,137	128	4
Lower Burma	32,267		355	32,622	1	
Central Provinces	1,455,200		85,691	1,440,896	18	72
Betar	3,138,394		54,378	3,192,772		27
Ajmer-Merwara	49,191		181	49,322	27	
Coorg	8		114	122		
Madras	2,388,998		290,708	2,679,706	66,562	2,678
Bombay	8,910,846		121,720	4,032,565	25	396,321
Mad	287,875		868	288,243	*271	568
Pargana Manipur	563		47	610		
Total	14,138,497	3,229,951	305,911	18,368,356	227,046	412,109

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CROPS UNDER CULTIVATION IN 1912-13 IN ACRES.

Administrations	Opium	Coffee	Tea.	Tobacco	Other Drugs and Narcotics.	Fodder Crops
Bengal			150 500	313 700	2 800	115,800
Bihar and Orissa			2 200	106,300		32,100
Assam		1	361 671	8 992		4 641
United Provinces (Agra)	100 014		7 998	68 185		970,096
United Provinces (Oudh)	94,025			13 554		143 838
Punjab	2 345		9 871	47 451	1 010	3 650,287
N W Frontier Province				8 737	461	92 588
Upper Burma	200	60	1 722	29 670	3 642	32,509
Lower Burma		4		58 458	36 196	1 706
Central Provinces				13 216	260	369 174
Berar				11 453	77	712
Ajmer Marwar				40		2 274
Coorg		42 510		33	205	
Madras		49 287	23 880	205,599	49 643	238,217
Bombay		51	14	71 942	24 946	100,295
Sind				7 456	97	11,232
Pargana Manipur						
Total	197 314	91 213	37 856	364 726	119 387	5 770 466

Administrations	Fruits and Vegetables including Root Crops	Miscellaneous Crops		Total Area Cropped	Deduct Area Cropped more than once.	Net Area Cropped
		Food	Non Food			
Bengal	826 300	430,500	350 700	30,498 800	4 543 400	25 954 900
Bihar and Orissa	766,900	490 800	262 300	33,178 400	6 056 300	27 122,106
Assam	400 444	42 038	72 876	8 275 825	450 492	5 825,323
United Provinces (Agra)	255 176	137 791	35 522	32 312 002	5 528 674	29,784,228
United Provinces (Oudh)	94 480	50 813	2 575	12 118 835	2,840 377	9,278,458
Punjab	257 431	22 755	16 566	27 510 028	3 351 006	24,159 016
N W Frontier Province	9 392	59 177	8 868	2 549 531	409 154	2 140 107
Upper Burma	519 538		3 525	5 397 014	433 311	4 963 708
Lower Burma	446 297		126 468	9 039 533	5 273	9 034,260
Central Provinces	87 858	2,361	631	19 454,788	1 750 961	17,683,832
Berar	11 413	2,230	248	6 952 079	13,149	6,938 880
Ajmer Marwar	556	7 494	938	38,298	38,225	356 463
Coorg	4 828			141 843	1 090	140,353
Madras	1 164 356		143 538	39 119,874	4,513 972	34,605,803
Bombay	590 412	1 245	2 078	26 138,281	968,018	25 180 263
Sind	41 758	101	45 820	4 287 041	296 491	8 690,370
Pargana Manipur	3		16	7,650	357	7,293
Total	5 455,857	1,832,465	1,067 975	255,356,481	31,180,826	234,185,803

Crop Forecasts for 1915-16.—The following is a summary of the various crop forecasts relating to the season 1915-16 issued by the Department of Statistics, India, and published in the *Indian Trade Journal* on the dates mentioned in the last column —

Crop	Tracts comprised in the figures and percentage of total Indian crop represented by them	Estimated Area	Per cent (100 = average of five years at corresponding date).	Per cent (100 = average of five years at corresponding date).
Sugarcane	U P. Punjab, Bihar and Orissa, Bengal, Madras, Bombay and Sind* Assam, N. W. F. Province and C. P. and Berar (99 per cent of total sugarcane area of British India.)	Acres. 2 508 000	Per cent 100	
Sesamum	U. P., C. P. and Berar, Madras, Bombay and Sind,* Bengal, Bihar and Orissa, Punjab and Ajmer Merwara (78 per cent of total sesamum area of British India.)	5 167 000	104	
Cotton	All cotton-growing tracts	16,000,000	82	
Indigo	Practically all Indigo growing tracts	38 100	100	
Rice	Bengal, Bihar and Orissa, Madras, Burma, U. P., C. P. and Berar, Bombay and Sind* and Assam (99 per cent total rice area of British India.)	4 431 000	117	
Groundnut	Madras, Bombay* and Burma (99 per cent of total groundnut area of British India.)	1 400 000	140	

* Including Native States

THE CIVIL VETERINARY DEPARTMENT

To the Civil Veterinary Department which originated in 1892 as an expansion of the military horse breeding department is entrusted the performance or supervision of all official veterinary work in India, other than that of the Army. Its duties fall under the main heads of cattle disease and cattle breeding, horse and mule breeding, and educational work in veterinary colleges.

In 1906 and the following years both the superior and the subordinate establishments were considerably increased, but the strength of the subordinate staff in most provinces was still

far short of the sanctioned establishment, the demand for veterinary graduates being greater than the supply and the European staff remained small in proportion to the volume of work calling for attention. The post of Inspector General, Civil Veterinary Department was abolished with effect from the 1st April 1912, the duties being transferred partly to local Governments and partly to the Agricultural Adviser to the Government of India. Of late years small veterinary departments, modelled on the Civil Veterinary Department, were started in several native states.

Meteorology.

The meteorology of India like that of other countries is largely a result of its geographical position. The great land area of Asia to the northward and the enormous sea expanse of the Indian Ocean to the southward are the determining factors in settling its principal meteorological features. When the Northern Hemisphere is turned away from the sun in the northern winter, Central Asia becomes an area of intense cold. The meteorological conditions of the temperate zone are pushed southward and we have over the northern provinces of India the westerly winds and eastward moving cyclonic storms of temperate regions, while when the Northern Hemisphere is turned towards the sun, Southern Asia becomes a super heated region drawing towards it an immense current of air which carries with it the enormous volume of water vapour which it has picked up in the course of its long passage over the wide expanse of the Indian Ocean so that at one season of the year parts of India are deluged with rain and at another persistent dry weather prevails.

Monsoons.—The all important fact in the meteorology of India is the alternation of the seasons known as the summer and winter monsoons. During the winter monsoon the winds are of continental origin and hence, dry, fine, with clear skies, low humidity and little air movement are the characteristic features of this season. The summer rains cease in the provinces of the North West Frontier Province and the Punjab about the middle of September after which cool westerly and northerly winds set in over that area and the weather becomes fresh and pleasant. These fine weather conditions extend slowly eastward and southward so that by the middle of October they embrace all parts of the country except the southern half of the Peninsula, and by the end of the year have extended to the whole of the Indian land and sea area, the rains withdrawing to the Equatorial Belt. Thus the characteristics of the cold weather from October to February over India are—Westerly winds of the temperate zone over the extreme north of India, to the south of these the north-east winds of the winter monsoon or perhaps more properly the north-east Trades and a gradually extending area of fine weather which as the season progresses, finally embraces the whole Indian land and sea area. Two exceptions to these fine weather conditions exist during this period, viz. the Madras coast and the north west of India. In the former region the north-east winds which set in over the Bay of Bengal in October coincide with the damp winds of the retreating summer monsoon, which current curves round over the Bay of Bengal and blowing directly on to the Madras coast gives to that region the wettest and most disturbed weather of the whole year for while the total rainfall for the four months June to September i.e. the summer monsoon, at the Madras Observatory amounts to 18.35 inches the total rainfall for the three months October to December amounts to 29.43 inches. The other region in which the weather is unsettled, during this period of generally settled conditions, is North-west India. This region during January, February and part of March is traversed by

a succession of shallow storms from the westward. The number and character of these storms vary very largely from year to year and in some years no storms at all are recorded. In normal years however, in Northern India periods of fine weather alternate with periods of disturbed weather (occurring during the passage of these storms) and light to moderate and even heavy rain occurs. In the case of Poohwar the total rainfall for the four months, December to March, amounts to 5.25 inches while the total fall for the four months, June to September is 4.78 inches, showing that the rainfall of the winter is absolutely greater in this region than that of the summer monsoon. These two periods of subsidiary rains are of the greatest economic importance. The fall in Madras is, as shown above, of considerable actual amount, while that of North west India though small in absolute amount is of the greatest consequence as on it largely depend the grain and wheat crops of Northern India.

Spring Months.—March to May and part of June form a period of rapid continuous increase of temperature and decrease of barometric pressure throughout India. During this period there occurs a steady transference northward of the area of greatest heat. In March the maximum temperatures slightly exceeding 100° occur in the Deccan. In April the area of maximum temperature, between 100° and 105° lies over the south of the Central Provinces and Gujarat. In May maximum temperatures, varying between 105° and 110° prevail over the greater part of the interior of the country while in June the highest mean maximum temperatures exceeding 110° occur in the Indus valley near Jacobabad. Temperatures exceeding 120° have been recorded over a wide area including Sind, Rajputana, the West and South Punjab and the west of the United Provinces but the highest temperature hitherto recorded is 128° registered at Jacobabad on June 12th, 1897. During this period of rising temperature and diminishing barometric pressure, great alterations take place in the air movements over India, including the disappearance of the north-east winds of the winter monsoon and the air circulation over India and its adjacent seas, becomes a local circulation characterised by strong hot winds down the river valleys of Northern India and increasing land and sea winds in the coast regions. These land and sea winds, as they become stronger and more extensive, initiate large contrasts of temperature and humidity which result in the production of violent local storms. These take the forms of dust storms in the dry plains of Northern India and of thunder and hailstorms in regions where there is inter action between damp sea winds and dry winds from the interior. These storms are frequently accompanied with winds of excessive force heavy hail and torrential rain and are on that account very destructive.

By the time the area of greatest heat has been established over north-west India, in the last week of May or first of June, India has become the seat of low barometric pressures relatively to the adjacent seas and the whole character of the weather changes. During

the hot weather period, discussed above, the winds and weather are mainly determined by local conditions. Between the Equator and Lat. 30° or 35° south the wind circulation is that of the south-east trades, that is to say from about Lat. 30° 35° south a wind from south-east blows over the surface of the sea up to about the equator. Here the air rises into the upper strata to flow back again at a considerable elevation to the Southern Tropic or beyond. To the north of this circulation, i.e., between the Equator and Lat. 20° to 25° North, there exists a light unsteady circulation, the remains of the north-east trades that is to say about Lat. 20° North there is a north-east wind which blows southward till it reaches the thermal equator where side by side with the south-east Trades mentioned above the air rises into the upper strata of the atmosphere. Still further to the northward and in the immediate neighbourhood of land there are the circulations due to the land and sea breezes which are attributable to the difference in the heating effect of the sun's rays over land and sea. It is now necessary to trace the changes which occur and lead up to the establishment of the south-west monsoon period. The sun at this time is progressing slowly northward towards the northern Tropic. Hence the thermal equator is also progressing northward and with it the area of ascent of the south-east trades circulation. Thus the south-east trade winds cross the equator and advance further and further northward, as the thermal equator and area of ascent follows the sun in its northern progress. At the same time the temperature over India increases rapidly and barometric pressure diminishes, owing to the air rising and being transferred to neighbouring cooler regions—more especially the sea areas. Thus we have the southern Trades circulation extending northward and the local land and sea circulation extending southward until about the beginning of June the light unsteady localizing circulation over the Arabian Sea finally breaks up, the immense circulation of the south-east Trades, with its cool, moisture laden winds rushes forward becomes linked on to the local circulation proceeding between the Indian land area and the adjacent seas and India is invaded by oceanic conditions—the south-west monsoon proper. This is the most important season of the year as upon it depends the prosperity of at least five-sixths of the people of India.

When this current is fully established a continuous air movement extends over the Indian Ocean, the Indian seas and the Indian land area from Lat. 80° S. to Lat. 80° N. the southern half being the south-east trades and the northern half the south-west monsoon. The most important fact about it is that it is a continuous horizontal air movement passing over an extensive oceanic area where steady evaporation is constantly in progress so that where the current enters the Indian seas and flows over the Indian land it is highly charged with aqueous vapours.

The Current enters the Indian seas quite at the commencement of June and in the course of the succeeding two weeks spreads over the Arabian Sea and Bay of Bengal up to their

extreme northern limits. It advances over India from these two seas. The Arabian sea current blows on to the west coast and sweeping over the Western Ghats prevails more or less exclusively over the Peninsula, Central India, Rajputana and north Bombay. The Bay of Bengal current blows directly up the Bay. One portion is directed towards Burma, East Bengal and Assam while another portion curves to south at the head of the Bay and over Bengal, and then meeting with the barrier of the Himalayas curves still further and blows as a south-easterly and easterly wind right up the Gangetic plain. The south west monsoon continues for three and a half to four months, viz., from the beginning of June to the middle or end of September. During its prevalence more or less general though far from continuous rain prevails throughout India the principal features of the rainfall distribution being as follows. The greater portion of the Arabian Sea current, the total volume of which is probably three times as great as that of the Bengal current, blows directly on to the west coast districts. Here it meets an almost continuous hill range, is forced into ascent and gives heavy rain alike to the coast districts and to the hilly range, the total averaging about 100 inches most of which falls in four months. The current after parting with most of its moisture advances across the Peninsula giving occasional uncertain rain to the Deccan and passes out into the Bay where it coalesces with the local current. The northern portion of the current blowing across the Gujarat Kathiawar and Sind coasts gives a certain amount of rain to the coast districts and frequent showers to the Aravalli Hill range but very little to Western Rajputana and passing onward gives moderate to heavy rain in the Eastern Punjab Eastern Rajputana and the North-west Himalayas. In this region the current meets and mixes with the monsoon current from the Bay.

The monsoon current over the southern half of the Bay of Bengal blows from the southwest and is thus directed towards the Tenasserim hills and up the valley of the Irrawaddy to which it gives very heavy to heavy rain. That portion of this current which advances sufficiently far northward to blow over Bengal and Assam gives very heavy rain to the low-lying districts of East Bengal and immediately thereafter coming under the influence of the Assam Hills is forced upwards and gives excessive rain (perhaps the heaviest in the world) to the southern face of these hills. The remaining portion of the Bay current advances from the southward over Bengal is then deflected westward by the barrier of the Himalayas and gives general rain over the Gangetic plain and almost daily rain over the lower ranges of the Himalayas from Sikkim to Kashmir.

To the south of this easterly wind of the Bay current and to the north of the westerly wind of the Arabian Sea current there exists a debatable area running roughly from Hissar in the Punjab through Agra, Allahabad and part of Chota Nagpur to Orissa, where neither current of the monsoon prevails. In this area the rainfall is uncertain and would probably

belight, but that the storms from the Bay of Bengal exhibit a marked tendency to advance along this track and to give it heavy falls of occasional rain.

The Total Rainfall of the monsoon period (June to September) is 100 inches over part of the west coast, the amount diminishes eastward, is below 30 inches over a large part of the centre and east of the Peninsula and is only 5 inches in South Madras. It is over 100 inches on the Tenasserim and South Burma coast and decreases to 20 inches in Upper Burma. It is over 100 in the north Assam Valley and diminishes steadily westward and is only 5 inches in the Indus Valley.

The month to month distribution for the whole of India is —

May	2 60 inches
June	7 10
July	11 25
August	9 52
September	6 78
October	3 15

Cyclonic storms and cyclones are an almost invariable feature of the monsoon period. In the Arabian Sea they ordinarily form at the commencement and end of the season, viz. May and November but in the Bay they form a constantly recurring feature of the monsoon season. The following gives the total number of storms recorded during the period 1877 to 1901 and shows the monthly distribution —

	Jan	Feb	Mar	Apl.	May	June
Bay of Bengal		1	4	13	23	
	July	Aug.	Sep.	Oct.	Nov	Dec
Bay of Bengal	41	36	45	34	22	8
	Jan	Feb	Mar	Apl.	May	June
Arabian Sea		2	15			

	July	Aug.	Sep.	Oct.	Nov	Dec.
Arabian Sea	2	1	1	5		

The preceding paragraphs give an account of the normal procession of the seasons throughout India during the year but it must be remembered, that every year produces variations from the normal, and that in some years these variations are very large. This is more particularly the case with the discontinuous element rainfall. The most important variations in this element which may occur are —

- (1) Delay in the commencement of the rains over a large part of the country this being most frequent in North Bombay and North-west India.
- (2) A prolonged break in July or August or both.
- (3) Early termination of the rains, which may occur in any part of the country.
- (4) The determination throughout the monsoon period of more rain than usual to one part and less than usual to another part of the country. Examples of this occur every year.

About the middle of September fine and fresh weather begins to appear in the extreme north-west of India. This area of fine weather and dry winds extends eastward and southward, the area of rainy weather at the same time contracting till by the end of October the rainy area has retreated to Madras and the south of the Peninsula and by the end of December has disappeared from the Indian region, fine clear weather prevailing throughout. This procession with the numerous variations and modifications which are inseparable from meteorological conditions repeats itself year after year.

MONSOON OF 1915.

The Arabian Sea monsoon arrived on the west coast about the middle of June, a fortnight after the normal date and although it gave abundant rain to the greater part of the Peninsula, it failed to penetrate properly into regions further north. The Bay current set in very gradually and at first provided less rain than usual with the result that over practically the whole tract, stretching from Bihar and Orissa to the valley of the Indus the rainfall of June was more or less in defect of the normal. In the area comprising the Punjab, Sind and Rajputana the month's fall was barely 50 per cent of the average. During July there was a marked break between the 2nd and the 12th and although thereafter there was a gradual improvement in the general activity of the currents the monsoon failed to extend satisfactorily into Rajputana, Sind and the Punjab. But little change occurred in the general behaviour of the monsoon in August the chief features of which were an almost complete break in the field of the Arabian Sea current between the 4th and the 50th and the attenuation of the drought in north west India. A marked increase in the activity of the monsoon took place in September and with but slight variation lasted up to the 12th of October when winter actions set in over Northern India. The improvement was most noticeable in north west India in most parts of which favourable rain occurred and the drought which at one time threatened to prove as serious as in 1877 was mitigated considerably.

As usually happens during seasons of weak monsoon conditions there were comparatively few cyclonic disturbances and of these the only noteworthy one was that which occurred towards the end of August and caused a deluge of rain in the region round Lucknow and Cawnpore.

The final retreat of the monsoon from north west India occurred on October 12th about three weeks after the average date.

The aggregate rainfall of the whole season from June 1st to October 15th in the plain of

India did not depart to any great extent from the normal, being in defect by only 2" or 5 per cent. Its geographical distribution was however not quite satisfactory. Thus the total fall for the monsoon season in northern and central India exceeded the normal only in Assam, Bengal, Bihar, the United Provinces, East Central India, East and the Central Provinces while the total fall in the Peninsula was greater than usual everywhere except in Madras, South-east and Konkan.

The excess was greatest in the United Provinces East (17" or 47 per cent.), Bombay Deccan (5½" or 23 per cent.) and Madras Coast North (7" or 27 per cent.) while the defect was most pronounced in Orissa (11" or 22 per cent.), Chota Nagpur (13" or 20 per cent.), Punjab (" or 48 per cent.), Rajputana (4" or 45 per cent.), Gujarat (11½" or 50 per cent.) and Central India West ("½" or 28 per cent.) (considering the smallness of the normal fall the shortage was serious also in Sind and the North West Frontier Province).

In Burma the recorded quantity was very nearly normal.

For meteorological purposes India is divided into 33 sub-divisions and taking the whole season from 1st June to 15th October in three of these the rainfall was in excess of the normal by more than 20 per cent in eighteen within 20 per cent of the normal and in the twelve remaining divisions in defect by more than 20 per cent.

The most characteristic features of the monsoon of 1915 thus were—(a) its late arrival, (b) its weakness and uns steadiness in July and August particularly in the usual field of the Arabian sea current, (c) its failure to penetrate into north west India before the middle of September, (d) its continuance up to about the middle of October in north west India where as a rule the rains come to an end in the third week of September and (e) its unusual concentration in the Peninsula to the detriment of northern India.

Rainfall, 1st June to 15th October 1915

Division	Actual	Normal	Departure from normal	Percentage departure from normal
Burma	75.1	81.0	- 5.9	- 7
Assam	68.2	65.2	+ 3.0	+ 5
Bengal	90.3	58.8	+ 31.5	+ 53
Bihar and Orissa	41.8	47.5	- 5.7	- 12
United Provinces	45.7	37.7	+ 8.0	+ 21
Punjab	8.6	15.8	- 7.2	- 46
North West Frontier Province	2.1	5.1	- 3.0	- 59
Sind	0.6	4.8	- 4.2	- 87
Rajputana	10.2	18.5	- 8.3	- 45
Bombay	36.4	38.8	- 2.4	- 9
Central India	32.7	35.1	- 2.4	- 7
Central Provinces	43.2	41.8	+ 1.4	+ 4
Hyderabad	32.1	28.4	+ 3.7	+ 13
Mysore	19.3	19.3	0	0
Madras	51.5	29.7	+ 21.8	+ 73
Mean of India	36.4	35.8	- 0.6	- 2

The Textile Industry.

India has been the home of the cotton trade from the earliest times. Its cotton, known as white wool, was well known to the ancients and its cloth was familiar to the West in the days of the overland route. The name Calico comes from the fine woven goods of Calicut, and the products of the Dacca handlooms are still remarkable as the finest muslins human skill can produce.

Indian Cotton.

The exports of Indian cotton began to assume importance with the opening of the sea route. They received an immense stimulus during the American Civil War when the close blockade of the Confederate ports produced a cotton famine in Lancashire and threw the English spinners back on India for their supply of raw material. When the war broke out the shipments of Indian cotton were 528,000 bales but during the last years of the war they averaged 978,000 bales. Most of this cotton was sold at an enormously inflated price and induced a flow of wealth into Bombay the great centre of the trade for which there was no outlet. The consequence was an unprecedented outburst of speculation known as the "Share Mania," and when the surrender of Lee re-opened the Southern Ports widespread ruin followed. It is estimated that the surplus wealth brought into the country by the American Civil War aggregated £92 millions. Since then the cultivation of Indian cotton although interrupted by famine, has steadily increased. For the last season for which returns are available, 1914-15 the total area in all the territories reported on was computed at 24,632,000 acres which marked a net decrease of 388,000 acres or 1.55 per cent. on the 25,020,000 acres (revised figure) of the previous year. The total estimated outturn was 6,232,000 bales of 400 lbs. as against 6,065,000 bales for previous year representing an increase of nearly 3.29 per cent. To this figure may be added some 1,000 bales estimated as the production in Native States in Benar and Orissa which make no return.

Bombay, the Central Provinces and Hyderabad are the chief producing centres. The following table gives the rough distribution of the outturn. The figures are the estimated figures for the past season and are not exact, but they indicate the distribution of the crop—

Burma	48,000	237,000
Behar and Orissa	16,000	72,000
Assam	12,000	34,000
Hyderabad	400,000	1,805,000
Bengal	35,000	92,000
United Provinces	482,000	1,545,000
Ajmer-Merwara	15,000	54,000
Punjab	474,000	1,855,000
North West Frontier	13,000	60,000
Sind	121,000	331,000
Bombay and Baroda	1,724,000	7,542,000
Central Provinces	1,097,000	4,709,000

Central India	292,000	1,524,900
Madras	385,000	2,885,000
Rajputana	158,000	480,000
Mysore	13,000	107,000

Of an average outturn of four million bales it may be said that 1,738,000 bales are exported, 1,781,000 consumed by the Indian mills, and 450,000 consumed in India outside the mills. The distribution of the export trade is indicated in the appended table.

Exports of cotton.—A portion of the Indian crop of the season 1913-14 and a portion of the crop of the season 1914-15 came into statistical consideration in the exports during the year 1914-15. The exports amounted to 10½ million cwts. valued at Rs. 88½ crores against 10¼ million cwts. valued at Rs. 41 crores in 1913-14. This represents 42 per cent. of the total value of raw materials exported from India and 19 per cent. of the total exports. The exports showed a decrease of nearly 3 per cent. in quantity and 18 per cent. in value. The average declared value per unit fell from Rs. 28-10-1 to Rs. 32-9-9 per cwt. or by 19 per cent. and the total loss due to reduced prices amounted to Rs. 8½ crores. The distribution of the trade is shown below. About 62 per cent. of the trade was effected in the pre-war period. The United Kingdom, Italy and Japan had larger receipts during the war period as compared with those in the earlier period. The principal purchasers of cotton other than Japan are in normal years Germany, Belgium, Italy, Austria-Hungary and France.

Exports of Raw Cotton

	1913-14	1914-15
	Tons	Tons
Japan	448,878	222,747
Italy	42,429	67,745
Germany	54,403	61,974
Belgium	50,654	39,718
United Kingdom	18,246	35,389
Austria-Hungary	37,352	29,287
France	26,213	27,614
China	9,714	12,409
Spain	8,347	11,248

Bombay is the great centre of the cotton trade. The principal varieties are Dholleria, Broach, Oomras (from the Benars) Dharwar and Coomptas. Broach is the best cotton grown in Western India. Hinganghat cotton, from the Central Provinces has a good reputation. Bengala is the name given to the cotton of the Gangetic valley and generally to the cottons of Northern India. The Madras cottons are known as Westerns, Coconada, Coimbatore and Tinnevely. The best of these is Tinnevely. Cambodia cotton has been grown with success in Southern India, but it shows a tendency to revert. The high prices of cotton realised of recent years have given a great impetus to cultivation. Government have also been active in improving the class of cotton produced by seed selection, hybridisation and the importation of exotic cottons. Although these measures have met with a considerable measure of success, they have not proceeded far enough to leave the whole outturn, which still consists for the most

of a short-staple early maturing variety, liable to mildew when the rainy season is brief. Reference has been made to the popularity of the Indian handloom cloths in the earliest years of which we have record. This trade was so large that it excited alarm in England, and it was killed by a series of enactments, commencing in 1701 prohibiting the use of any of Indian calicoes in England. The introduction of the spinning jenny and the power

loom and their development in England converted India from an exporting into an importing country and made her dependent on the United Kingdom for the bulk of her piece-goods. The first attempt to establish a cotton mill in India was in 1838, but the foundations of the industry were really laid by the opening of the first mill in Bombay in 1856. Thereafter, with occasional set backs from famine plague and other causes its progress was rapid.

The following statement shows the quantity (in pounds) of yarn of all counts spun in all India the twelve months, April to March, in each of the past three years —

	1912-13	1913-14	1914-15
Bombay	485 686 927	479 682,97.	448,556 493
Madras	44,974 188	44 673 628	43,081 681
Bengal	87,855 118	38 219 947	31 708,798
Central	48 765,289	44 468,506	50,281,135
United Provinces	5 989 389	6 374,754	6 613,549
Punjab	33 681 772	36 582,870	34 536 150
Assam and other States	37 690 924	37,924,174	36 946 491
GRAND TOTAL	638 473 902	682 776,861	651 908,307

The spinning of yarn is in a large degree centred in Bombay, the mills of that province producing nearly 75 per cent. of the quantity produced in British India. The United Provinces of Agra and Oudh and Madras produced about 7 per cent. each, while Bengal and the Central Provinces produced 5 and 4 per cent. respectively. Elsewhere the production is as yet very limited.

BOMBAY SPINNERS

Here is a detailed statement of the quantity (in pounds) and the counts, or numbers, of yarn spun in Bombay Island —

	1912-13	1913-14	1914-15
No. 1 to 10	95 429 461	89 351 981	88 219 689
" 11-20	188 102 363	186 216 653	182 257 972
" 21-30	74,850 464	74 751,191	68,562,972
" 31-40	4 420 751	3,830,873	4 016,805
Above 40	837,260	822,287	599,062
Waste, &c.	40 701	51 911	105,902
TOTAL	368 681 000	365 021 696	322,153 282

YARN AT AHMEDABAD

The corresponding figures for Ahmedabad are as follows —

	1912-13	1913-14	1914-15
No. 1-10	2,039 676	1,508 504	2,239 295
" 11-20	15 656,673	14 912,547	21 010,020
" 21-30	37,049 666	39,543,101	39,011,871
" 31-40	11 667 071	11,890 408	8 970,648
Above 40	1,375 446	958,218	252,906
Waste, &c.	1,662	144,959	4,718
TOTAL	67,810,194	66,952,787	72,487,652

The Textile Industry

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YARN SPUN THROUGHOUT INDIA.

The grand totals of the quantities in various counts of yarn spun in the whole of India, including Native States, are given in the following table —

	1912-13	1913-14	1914-15
No. 1—10	137 002,374	130 783,748	130,978,132
" 11—20	369 898 282	361,908,914	343,284,826
" 21—30	158,836 811	166 994 607	156,280,874
" 31—40	19 641 700	19 712,388	18 701,101
Above 40	2,937 880	2 698 686	2,232,688
Wastes, &c.	680 955	678,598	473,316
TOTAL	688 472 902	682 776,851	661 908,907

In the early days of the textile industry the energies of the millowners were largely concentrated on the production of yarn both for the China market, and for the handlooms of India. The increasing competition of Japan in the China market, the growth of an indigenous industry in China and the uncertainties introduced by the fluctuations in the China exchanges consequent on variations in the price of silver compelled the millowners to cultivate the Home market. The general tendency of recent years has been to spin higher counts of yarn, importing American cotton for this purpose to supplement the Indian supply, to erect more looms and to produce more dyed and bleached goods. This practice has reached a higher development in Bombay than in other parts of India and the Bombay Presidency produces nearly 87 per cent. of the cloth woven in India. The United Provinces produces 8.8 per cent. the Central Provinces 6 per cent. and Madras about 8 per cent. Grey (unbleached) goods still represent nearly 77 per cent. of the whole production but dyeing and bleaching are making rapid progress.

ANALYSIS OF WOVEN GOODS.

The following brief extract is taken from the statement of the quantity (in pounds and their equivalent in yards) and description of woven goods produced in all India, including Native States —

	1912-13	1913-14	1914-15
Grey and Bleached piece-goods—			
Pounds	211 111 891	202,763 449	218,576 441
Yards	914 191,236	872,445 720	880,501,618
Coloured piece-goods—			
Pounds	71 828 058	68,829,264	61 067,187
Yards	806,251,809	291,546,966	255,206,324
Grey and coloured goods other than piece-goods—			
Pounds	1,812,694	2,165,496	1,735 087
Dozens	415 188	637 040	512,465
Hosiery—			
Pounds	600 997	471 849	236 018
Dozens	234,799	267 411	179,373
Miscellaneous—			
Pounds	217 668	157,993	341,263
Total—			
Pounds	285 491 062	274,388,550	277 006,900
Yards	1,320 442,545	1,164,291,588	1,135,707,932
Dozens	699 932	905,051	660,186

BOMBAY WOVEN GOODS.

The output of woven goods during the three years in the Bombay Presidency was as follows. (The weight in pounds represents the weight of all woven goods, the measure in yards represents the equivalent of the weight of the grey and coloured piece-goods.)

	1912-13	1913-14	1914-15
Pounds	820,262,580	218,042,781	232,169,812
Yards	1,001,464,978	841,872,680	956,860,000
Dozens	436 078	761,205	660,186

part of a short-staple early maturing variety suitable to soils where the rainy season is brief.

Reference has been made to the popularity of the Indian handloom cloths in the earliest days of which we have record. This trade grew so large that it excited alarm in England, and it was killed by a series of enactments, commencing in 1701 prohibiting the use or sale of Indian calicoes in England. The invention of the spinning jenny and the power

loom and their development in England converted India from an exporting into an importing country and made her dependent on the United Kingdom for the bulk of her piece-goods. The first attempt to establish a cotton mill in India was in 1855 but the foundations of the industry were really laid by the opening of the first mill in Bombay in 1856. Thereafter with occasional set backs from famine plague and other causes its progress was rapid.

The following statement shows the quantity (in pounds) of yarn of all counts spun in all India in the twelve months, April to March, in each of the past three years —

	1912-13	1913-14	1914-15
Bombay	485,566,927	479,682,975	448,556,493
Madras	44,974,188	44,678,826	43,051,891
Bengal	37,355,118	33,210,947	31,708,798
U. P.	43,765,289	44,468,506	50,281,135
Punjab	5,339,389	6,274,754	6,813,549
C. P. and Berar	35,681,772	36,532,670	34,566,150
Native States	37,890,324	37,924,174	36,946,491
GRAND TOTAL	688,472,902	682,770,851	651,903,307

The spinning of yarn is in a large degree centred in Bombay, the mills of that province producing nearly 75 per cent. of the quantity produced in British India. The United Provinces of Agra and Oudh and Madras produced about 7 per cent. each, while Bengal and the Central Provinces produced 5.5 and 4.7 per cent. respectively. Elsewhere the production is as yet very limited.

BOMBAY SPINNERS

Here is a detailed statement of the quantity (in pounds) and the counts or numbers, of yarn spun in Bombay Island —

	1912-13	1913-14	1914-15
No. 1 to 10	95,429,481	89,351,981	88,119,069
" 11-20	188,102,363	186,216,653	162,857,972
" 21-30	74,850,464	74,751,191	66,552,972
" 31-40	4,420,751	3,830,678	4,016,805
Above 40	887,260	822,387	699,082
Wastes, &c.	40,701	61,911	105,902
TOTAL	368,881,000	355,024,690	322,153,282

YARN AT AHMEDABAD

The corresponding figures for Ahmedabad are as follows —

	1912-13	1913-14	1914-15
No. 1-10	2,039,676	1,508,504	2,289,205
" 11-20	15,656,673	14,912,547	21,010,020
" 21-30	37,049,666	30,543,101	39,011,371
" 31-40	11,687,971	11,890,408	8,970,048
Above 40	1,375,448	938,218	253,205
Wastes, &c.	1,662	144,969	4,718
TOTAL	67,810,194	68,662,737	72,487,862

YARN SPUN THROUGHOUT INDIA.

The grand totals of the quantities in various counts of yarn spun in the whole of India, including Native States, are given in the following table —

	1912-13.	1913-14	1914-15
Nos. 1—10	187,003,274	130,782,746	180,878,122
" 11—20	266,895,228	361,908,914	343,236,226
" 21—30	158,836,811	166,994,607	166,230,374
" 31—40	19,841,700	19,712,398	18,701,101
Above 40	2,937,880	2,698,656	2,232,998
Wastes &c	660,955	678,598	473,316
TOTAL	688,472,902	682,776,851	651,903,307

In the early days of the textile industry the energies of the millowners were largely concentrated on the production of yarn both for the China market, and for the handlooms of India. The increasing competition of Japan in the China market, the growth of an indigenous industry in China and the uncertainties introduced by the fluctuations in the China exchanges consequent on variations in the price of silver compelled the millowners to cultivate the Home market. The general tendency of recent years has been to spin higher counts of yarn importing American cotton for this purpose to supplement the Indian supply, to erect more looms, and to produce more dyed and bleached goods. This practice has reached a higher development in Bombay than in other parts of India, and the Bombay Presidency produces nearly 87 per cent. of the cloth woven in India. The United Provinces produces 3.8 per cent. the Central Provinces 5 per cent. and Madras about 8 per cent. Grey (unbleached) goods still represent nearly 77 per cent. of the whole production but dyeing and bleaching are making rapid progress.

ANALYSIS OF WOVEN GOODS.

The following brief extract is taken from the statement of the quantity (in pounds and their equivalent in yards) and description of woven goods produced in all India, including Native States —

	1912-13	1913-14.	1914-15
Grey and Bleached piece-goods—			
Pounds	211,111,891	202,763,449	218,376,441
Yards	914,181,236	872,445,720	880,501,613
Coloured piece-goods—			
Pounds	71,329,062	68,829,264	61,067,187
Yards	306,251,809	291,840,868	255,806,534
Grey and coloured goods other than piece-goods—			
Pounds	1,812,894	2,166,496	1,735,087
Dozens	415,133	687,640	512,455
Hosiery—			
Pounds	500,997	471,849	283,918
Dozens	234,799	267,411	179,272
Miscellaneous—			
Pounds	217,668	157,692	341,298
Total—			
Pounds	235,481,002	274,388,550	277,606,900
Yards	1,320,443,345	1,164,291,888	1,135,707,932
Dozens	699,932	905,051	691,868

BOMBAY WOVEN GOODS.

The output of woven goods during the three years in the Bombay Presidency was as follows. (The weight in pounds represents the weight of all woven goods, the measure in yards represents the equivalent of the weight of the grey and coloured piece-goods.)

	1912-13	1913-14.	1914-15.
Pounds	280,203,590	218,042,761	222,156,312
Yards	1,001,684,973	841,673,666	896,569,396
Dozens	488,078	761,205	800,180

The grand totals for all India are as follow —

	1912-13	1913-14	1914-15
Pounds	285 411 002	274 388 550	277 005 900
Yards	1,220 442 545	1,164 291 588	1 135 707 952
Doyens	693 932	636 051	491 658

TRADE OF THE YEAR.

The depression in the cotton trade which was noticeable before the close of 1913 continued into 1914 and four weeks before the outbreak of war the full effects of a prolonged depression were discernible. Stocks began to swell with no off take and a dozen mills resolved to stop working for some time, although the majority continued to work. Both the spinning and weaving industries suffered throughout the year and at the close there was no immediate prospect of a large off take of the accumulated stocks. The problem of the supply of chemicals and dyes, which were regularly obtained from Germany presented also a serious difficulty on the outbreak of war. The output of the mills shows that the production of yarn during 1914-15 was 652 million lbs. a decrease of 71 million lbs. or 4.5 per cent., while that of cloth (2.7 million lbs.) increased by 3 million lbs. or about 1 per cent. as compared with the production of 1913-14. A rough estimate of the value of Indian production in 1914-15 is Rs. 304 crores for yarn and Rs. 1.24 crores for woven goods the value of local manufactures is less than the imports from abroad by nearly Rs. 4 crores.

Indian Production—The production of Indian weaving mills consists chiefly of grey and bleached piecegoods. There was a slight recovery in production during the year. The production of grey and bleached piecegoods increased by 8 million yards to 860 millions but that of coloured goods decreased by about 36 million yards to 255 millions. In the whole of India 8,634 889 spindles and 104 180 looms were at work during 1914-15 employing on the average 258 733 persons the share of Bombay being 4 618 370 spindles 81 411 looms and 175 743 persons. India produced in 1914-15 652 million lbs. of yarn out of which 247 million lbs. were consumed in the production of cloth 142 million lbs. were exported by sea and land leaving about 263 million lbs. which was probably consumed in the handloom weaving. More yarn is consumed in the country than is exported.

Export Trade

The figures of the export trade are given below —

	Yarn	Woven
	Million lbs.	Goods Total Rs. (lakhs) Rs. (lakhs)
1910-11	183	8.62 2.39 11.01
1911-12	151	7.59 2.19 9.78
1912-13	204	9.92 2.28 12.20
1913-14	198	8.53 2.29 10.82
1914-15	184	6.28 1.73 8.01

The trade in cotton twist and yarn was bad last year and the demand from most of the consuming countries was poor. The export declined by 64 million lbs. or 33.6 per cent.

due to smaller shipments to Asiatic Turkey and China. The value fell by Rs. 9.55 lakhs or 30 per cent. The average value per lb. was 7 annas 6 pils against 7 annas 11 pils in 1913-14. The price was lower as a result of trade depression owing to the war. China took 117 million lbs. valued at Rs. 4.42 lakhs or 87 per cent. of the total against 173 million lbs. valued at Rs. 8.77 lakhs in 1913-14. Shanghai and Japanese mills are the competitors of the Indian mills on the China market. India's exports of yarn to countries other than China amounted to 17 million lbs. against 20 million lbs. in the previous year. The Straits took practically the same quantity namely 44 million lbs. valued at Rs. 24½ lakhs which is less by Rs. 3 lakhs than the value of exports in 1913-14. The trade with Asia & Turkey declined very considerably from 74 million lbs. and Rs. 35½ lakhs to 43 million lbs. and Rs. 22½ lakhs. The exports to the other chief countries Aden, Persia, Ceylon and Egypt very closely approximated to the previous year's figures. The United Kingdom and Japan respectively took 454 980 lbs. and 10 lbs. against 401 691 lbs. and 79 220 lbs. in 1913-14.

Piecegoods—The exports of piece goods also contracted by 22 million yards or 24.7 per cent. in quantity and by Rs. 55 lakhs or 25.7 per cent. in value indicating a decrease in the declared value by 2.2 per cent. from 10 annas 10 pils per yard in 1913-14 to 8 annas 9 pils per yard in the year. Grey goods represent 49 per cent. of the total and in this line the trade declined by nearly 11 million yards and Rs. 19½ lakhs while coloured goods consisting chiefly of lungis and saris represent 50.6 per cent. of the total showing a decline of 11 million yards and Rs. 34½ lakhs. The principal customers are East Africa, the Straits, Aden, Ceylon, Persia, Asiatic Turkey, Siam and Egypt. The trade with China declined from 870 800 yards to 777 200 yards. The other eastern countries showed marked decrease namely the Straits by 8 million yards and Rs. 12 lakhs, Ceylon by 24 million yards and Rs. 7½ lakhs and Siam by a million yards and Rs. 2½ lakhs. Aden recovered from the previous year's depression the increase amounting to 8 million yards valued at Rs. 4½ lakhs while Asiatic Turkey and Egypt recorded a decrease of 8 million yards and 11 million yards respectively. Persia also took 2 million yards less than in the previous year. Both German East Africa and the British East African Protectorate suffered and recorded a decrease of 3½ million yards and 11 million yards respectively. Handkerchiefs which are made by the hand looms in the Madras Presidency and are the chiefly exported to the United Kingdom, improved slightly.

Progress of the Mill Industry

The following statement shows the progress of the Mill Industry in the whole of India.

Year ending 30th June	Number of Mills	Number of Spindles	Number of Looms	Average No of Hands Employed Daily	Approximate Quantity of Cotton Consumed.	
					Cwts.	Bales of 302 lbs.
1897	173	4 065 618	37 584	144 385	4 553 276	1 300 336
1898	185	4 269 720	38 613	148 964	5 184 648	1 481 328
1899	188	4 728 333	39 069	162 106	5 863 185	1 675 190
1900	193	4 945 788	40 124	161 189	5 066 732	1 453 352
1901	193	5 006 936	41 180	172 683	4 731 090	1 351 740
1902	192	5 006 965	42 584	181 031	6 177 633	1 765 038
1903	192	5 043 297	44 092	181 899	6 087 690	1 739 340
1904	191	5 118 121	45 337	184 779	6 108 681	1 744 786
1905	197	5 163 486	50 139	195 277	6 577 354	1 879 244
1906	217	5 279 595	52 568	208 616	7 082 306	2 023 516
1907	224	5 733 215	58 438	206 696	6 630 595	1 980 170
1908	241	5 756 020	67 920	221 195	6 970 250	1 991 500
1909	259	6 055 231	76 868	236 924	7 381 500	2 109 000
1910	263	6 196 671	81 725	233 624	6 772 635	1 935 010
1911	263	6 357 480	86 552	230 649	6 670 531	1 905 566
1912	268	6 465 929	88 951	243 637	7 175 357	2 050 102
1913	272	6 596 862	94 186	253 786	7 336 058	2 096 016
1914*	271	6 778 895	104 179	260 276	7 500 961	2 143 126

* Year ending 31st August 1915.

Comparative Figures

In Great Britain, the United States of America and in India, there are 2 011 mills, 1 449 mills and 272 mills respectively. The number of spindles in each country is as follows—5 93 crores, 3 22 crores and 67 lakhs for India, looms 8 95 lakhs, 6 96 lakhs, and 104 000 for India, the number of hands employed 6 27 lakhs for Great Britain, 3 18 lakhs for America and 2 60 lakhs for India, cotton consumed in bales 42 84 lakhs, 59 lakhs and 21 lakhs Indian bales for India. If these Indian bales which are 302 lbs. per bale are reduced to American bales which are 600 lbs. bales, the number of bales consumed in India would be about 20 per cent less. The wages earned by the workmen of each country are as follows—England 48 90 crores per annum, America 38 40 crores, India 6 53 crores. Out of her total production England retains 29 per cent. for home consumption, America 94 per cent. and India 79 per cent.

Wages.

The following comparison of wages has been prepared by a Mill Proprietor. Wages come to 2 68 crores for Bombay which employs 1 10 lakh workers. The Bombay Mills employ a very expensive staff of managers and overseers. To them and all other office and clerical staffs 26 lakhs were given so if this sum is deducted the workman proper got 2 42 crores, or Rs 220 per annum per head. The English workman gets Rs 790 per annum and the American workman gets Rs 1,050 per annum. If the same test of profits and wages to the whole of India is applied then for 1913 the industry as a whole earned 6 84 crores and wages to workman proper would come to 5 90 crores and to the staff 63 lakhs, or a total of 6 53 crores to be divided amongst 2 43 lakh hands which are employed in India. The average rate of wages at this figure would work out at Rs. 280 per annum.

Statement of the amount in rupees of Excise duty realised from goods woven in the Cotton Mills in British India under the Cotton Duties Act, II of 1896 also the amount of equivalent duty levied in the Native States in each year from 1893-95 to 1912-13

	Bombay	Madras	Bengal	United Provinces of Agra and Oudh (also Ajmer-Merwara)	Punjab	Central Provinces and Berar (a)
1895-96 (b)	196	496	69	4 259	815	
1896-97	9 14,480	56 307	4 480	45 870	13 270	59 040
1897-98	9 60 600	68 470	1,180	44,350	14 460	79 269
1898-99	11,28 390	89 130	900	61 000	12,730	84 969
1899-1900	10,95 236	48 373	2 523	54,213	10 448	88 109
1900-01	10 28 542	41 827	5 088	50 116	5 800	84 978
1901-02	15 28 103	54 139	5 863	69 234	4 379	1 10 140
1902-03	15,34 121	67 818	6 661	74 023	8 061	1 30 620
1903-04	17 64,527	62 350	10,908	88 189	1 104	1 58 871
1904-05	20 43 835	63 379	11 929	96 710	2 607	1 61 368
1905-06	22,78 425	1,10 043	11 163	1 32 384	5 144	1 68 743
1906-07	24,36 245	1 32 639	23 709	1 36 884	7 464	1 64 680
1907-08	28 82 296	1 35 131	31 558	1 66 044	8 746	1 75 944
1908-09	29 51 859	1 42 295	53 331	1 88 343	9 509	1 98 410
1909-10	33 88 658	1 45 833	55,822	1 92 552	9 811	2 17 217
1910-11	36 78 555	1 48,186	56,359	1 82 085	7 800	2 07 818
1911-12	42 17 878	1 65 048	48 681	1 84 884	10 862	2 52,415
1912-13	43 27 698	2,06,862	81 709	2,11,347	17 971	2 71 883
1913-14	46 08 188	2 18 166	78 951	2,55 467	22 763	3 00 919
1914-15 (c)	42,31 544	1 79 569	53 028	2,07 454	10 285	2 32 282

	Total British India.		Native States	Grand Total.	
	Gross duty	Net duty	Gross duty	Gross duty	Net duty
1895-96 (b)	5 835	5 835	244	5 879	5 879
1896-97	11,23 440	10 91 590	18 459	11 41,899	11 10 049
1897-98	11 06 329	11 38 950	47 836	12 14 164	11 86 785
1898-99	13 75 119	15 53 120	52,186	14 2, 305	14 05 806
1899-1900	18 39 812	13 09 514	40 937	18 80 749	18 50 451
1900-01	12 16 867	11 62 947	48 449	12 84 736	12 11 366
1901-02	17 69 006	17 16 839	61 171	18 81 073	17 77 968
1902-03	18 66 218	18 52 489	65 541	19 31 754	18 91 010
1903-04	20 77 449	20 36 104	69 061	21 38 510	20 95 149
1904-05	23 51 825	23 33 656	67 820	24,49 145	24 06 978
1905-06	27 06 784	26 71,061	83 455	27 90,239	27,34 518
1906-07	29 00 957	28 64 202	81 978	29 82,671	29 46 152
1907-08	33 99 717	33 55 948	97 499	34 97 216	34,53 448
1908-09	35 43 778	34 98 480	1 14 493	36 58 276	36 12,977
1909-10	40 06 193	39 61 020	1 37 899	41 43 892	40 94 719
1910-11	42,26 575	1 75 878	1,75,878	44,56 129	44 01 707
1911-12	48 79 478	48 04,492	1,62,479	50 61 957	49,86 971
1912-13	56,17 969	55,78 687	2 21 178	58 39 147	57 97 745
1913-14	64,39 043	53 95 014	2,38 893	66 77 436	66 33 407
1914-15	49 34,162	48 79 385	2,33,160	61 67 322	61 12 545

(a) From the 1st October 1902 from which date the province was leased in perpetuity to the British Government. (b) For February and March 1895. (c) Provisional.

COTTON FIRES IN BOMBAY

The Bombay Cotton Green has been situated at Colaba since 1844 and occupies an area of about 1½ miles square. On it each dealer rents a plot which is known as his *jatha*. The cotton season opens at the Diwal, in October or November, when the dealers bring to their *jathas* the balance of the previous crop which has been stored throughout the monsoon, and from that date until the monsoon breaks in the following June the Cotton Green is crowded with bales and is the scene of great activity. It has long been recognised that the Green is inconvenient both in regard to its situation and its limited size and arrangements for its transfer have been made.

In recent years there have been several fires on the Green, culminating in a long series in 1914 when the damage done by fire surpassed all records. It is estimated that 150,000 bales valued at Rs 1,65,00,000 were in 1914 affected by fire. Allowing for 75,000 damaged bales (valued at Rs 82,50,000) which were sold by Insurance Companies the loss works out as follows: 75,000 bales totally burnt or rendered useless for spinning purposes valued at Rs 83,00,000.

But the number of fires in the different years varies greatly. In 1904 there was only one and the same in 1905, but in 1906 the number was thirty-eight, coming to more recent years we find one in 1911, three in 1912, thirteen in 1913, forty-three in 1914 and seven in 1915. The fires are generally confined to a particular area of the Green, where though the public is not excluded there is a regular system of watchmen.

Committee of Inquiry.—The disastrous fires of 1914 led to the appointment by the Government of Bombay of a Committee to inquire into the causes of the outbreaks of fire on the Cotton Green and to consider and recommend what preventive and protective measures should be adopted to guard against such outbreaks in future.

A Government Resolution, published in November 1914 summarises the suggestions of that Committee as follows:—

- (i) The removal of the Cotton Green from Colaba to some more spacious better arranged better drained and more remote site.
- (ii) The restriction of the height of cotton stacks, with proper alleys lanes or roads between the various stacks and *jathas*.
- (iii) The storage of cotton in godowns which are properly built.
- (iv) The organization and maintenance by the cotton merchants and Insurance Companies jointly of a better staff for guarding the Green.
- (v) The provision of an adequate number of hydrants and full pressure of water throughout the 24 hours.
- (vi) Efforts by Insurance Companies to safeguard as closely as possible their own interests after a fire has occurred.

(vii) The institution of a tribunal or court of enquiry of the nature referred to in the preceding paragraph.

Fraudulent Incendiarism.—Government accepted the committee's conclusion that the fires of 1914 were due to wilful and fraudulent incendiarism, the motive for which is to be found in the exceptional conditions which characterized the cotton market during that season. In the absence of a definite clue, the Committee found itself unable to determine upon which of the several classes which stood to benefit by the destruction of large stocks of cotton the culpability for these conflagrations lay.

The Resolution also stated that, pending the completion of the Sewri Reclamation, the Port Trust are making arrangements, at a cost of approximately three lakhs to lay out a suitable storage ground near the reclamation. This in conjunction with the existing Cotton Green will admit of even a large crop being stored in conditions which will not reproduce the dangerous features which characterized the storing of last year's crop. The insurance companies have already taken action, by the imposition of almost prohibitive rates where these precautions are not observed to compel the restriction of the height of stacks of bales and the provision of a liberal allowance of free space between adjoining stacks. The provision of the additional storage area referred to above will facilitate the adoption of these very necessary safeguards.

The annual report on the Bombay City Police for 1914 states that, a thorough examination of the books of various companies has established beyond a shadow of doubt that considerable fortunes have been made over the fires by those in the cotton trade as a result of a system of fraud in the dealing, mixing, and classification of cotton. Later investigation, however, is believed to have resulted in a considerable modification of that statement and of the theory of concerted incendiary crime.

Artificial Damping.—The attention of the International Cotton Committee, under the presidency of Sir Charles Macara, was in 1914 drawn to the subject of the cotton fires. The two representatives of India on the Committee, suggested the possibility that the artificial damping of the cotton might be a contributory cause to the outbreaks. The point was made that the International Federation during the ten years of their existence have waged strenuous warfare against the artificial damping of cotton and have heard from Lord Curzon, the Secretary of State for India, that the practice was one which was fraudulent and should be met by penal legislation. A strong opinion was expressed in favour of the Government of India passing an Act in accordance with the terms of Lord Curzon's speech. M. Berger, the representative of France stated that since the perfecting of the system of testing cotton for damp on its arrival at the port of Havre the sellers of a consignment of cotton which contained more than 6½ per cent. of moisture were compelled by the French law courts to make good the excess of moisture to the firm to whom the cotton was consigned, this case being the first of the kind on record.

The Jute Industry.

Considering its present dimensions, the jute industry of Bengal is of very recent origin. The first jute mill in Bengal was started at Rishra in 1855 and the first power loom was introduced in 1859. The original output was 8 tons per day. In 1869 it had grown to 2,500 tons per day. It is now 3,000 tons per day (working short time), and it shows every indication of growing and expanding year by year. Another interesting thing about the jute industry of Bengal is that although it is practically a monopoly of Scotsmen from Dundee the industry itself owes its inception to an Englishman. The founder of the industry was George Acland an Englishman who began life as a midshipman in the navy, and was for some years in the East India Marine Service. He quitted this service while still a young man and engaged in commercial pursuits in Ceylon where he was successful. Later on he turned his attention to Bengal and arriving in Calcutta about 1853 he got into touch with the management of the paper works, then at Serampore where experiments were being tried with country grasses and fibre plants to improve the quality or cheapen the manufacture of paper. This seems to have suggested to Acland the manufacture of rees, and in 1854 he proceeded to England, with a view to obtaining machinery and capital in order to manufacture goods from that material. During this trip he visited Dundee and while there Mr John Kerr of Douglas Foundry suggested to him the importing of machinery into Bengal where the jute comes from and spin it there. This suggestion bore fruit for shortly afterwards Acland placed orders with Kerr for a few systems of preparing and spinning machinery and returned to India the same year accompanied by his two sons and a few Dundee mechanics who were to assist him in erecting and operating the first jute mill in Bengal. This as has been stated was at Rishra the site of the present Welling-ton mills, near Serampore, and here, in 1855 the first machine spun jute yarns were made. As not infrequently happens the pioneer got very little out of his venture. After several ups and downs the Acland interest in the Rishra mill ceased in 1867, and the company which Acland had formed in 1854 was wound up in 1868.

Power looms.—The pioneer's example was followed by Mr George Henderson of that ilk and firm, and in 1859 the Borneo Jute Co. was launched under his auspices. To this company is due the credit of introducing the power loom for jute cloth. Unhindered by the financial difficulties which had burdened the Aclands, the Borneo Jute Co. made rapid progress, doubling their works in 1864 and clearing their capital twice over. In 1872 the mills were turned into a limited liability company the present "Barnagore Jute Manufacturing Co. Ltd." Four other mills followed in succession—Goudpore, Serajgunge, and India Jute Mills.

"From 1868 to 1878" writes Mr. David Wallace in "The Romance of Jute," "the five mills excepting the Rishra mill simply

coined money and brought the total of their looms up to 1,260. To illustrate the prosperity of the industry at this period we may take the dividends paid by the Barnagore Company. On the working of their first half year a 15 per cent. *interim dividend* was declared which seemed to justify the enormous capital at which the company was taken over from the Borneo Company and shares touched 48 per cent. premium. The dividend for the first year, ending August 1878, was 25 per cent. for 1874-75 20 per cent., and for 1875-76 10 per cent. Then came a change. The investing public had forgotten the effect of the Port Canning bubble and the condition of the jute industry in 1872-73 seemed to offer a better return than coal or tea both of which had just enjoyed a boom. It was only necessary to issue a prospectus of a jute mill to have all the shares snapped up in the course of an afternoon.

In 1872-73 three new companies were floated locally—the Port Gloster, Budke, Budge and Sibpore and two Borneo companies the Champdany and Samnugger all of which commenced operations in 1874. In 1874-5 eight other mills were launched—the Howrah Oriental (now Union) Asiatic (now Soorah) (five Bengal Pressing and Manufacturing Co. (now the Bellaghatia Barnagore branch mill) Rustonjee (now the Central) Ganges (registered in England) and Hastings, owned by Messrs Rirkmire Bros., of Greenock fame—in all thirteen new companies, coming on all of a heap and swelling the total looms from 1,260 up to 3,500. This was too much of a strain for the new industry and for the next ten years all the mills had a severe struggle. The older ones all survived the ordeal, but four of the new concerns—the Oriental, the Asiatic, the Bengal Pressing and Manufacturing Co. and the Rustonjee—became moribund to appear again later on under new names and management. Port Gloster also suffered badly.

Between 1875 and 1882 only one new mill was put up. This was Kamarhaty promoted by Messrs Jardine Skinner & Co., which came into being in 1877 as the result of Dr. Barry's visit to Calcutta in 1876 when he transferred the agency of the Goudpore Co. from Messrs Jardine Skinner & Co. to his own firm. This mill, together with additions made by some of the other mills brought the total looms up to 5,150 in 1882. By the end of 1885 the total was further augmented by the Hooghly, Titagarh, Victoria and Kankarrah mills bringing the number of looms at work up to 8,700. From this period on to 1894 no new mills came into existence except the Calcutta Twist Mill with 2,460 spindles since merged into the Wellington branch of the Champdany Co. Between 1890 and 1900 the following new mills were started—the Gordon Twist Mill with 1,900 spindles (now acquired by Anglo India) Khardah Gondolpara (French owned) Alliance Arathoon Anglo India Standard, National Delta (which absorbed the Serajgunge) and the Kinnison. A full of four years witnessed large extensions to the existing mills, after which came the following series of new

mills, besides further heavy extensions—Dalhousie, Alexandria, Naihati, Lawrence, Roanoke, Belvedere Auckland Kelvin and Northbrook

Progress of the Industry

The record of the jute industry may well be said to be one of uninterrupted progress. The following statement shows quinquennial aver-

ages from the earliest year for which complete information is available with actuals for the last five years and the figures in brackets represent the variations for each period taking the average of the quinquennium from 1879-80 to 1883-84 as 100. It will be seen that the number of looms and spindles in operation has increased to a very much larger extent than either the number of mills at work or the amount of nominal capital employed.

	Number of mills at work.	Nominal Capital (in lakhs of Rs.)	Number (in thousands) of		
			Persons employed.	Looms.	Spindles
1879-80 to 1883-84	21 (100)	270.7 (100)	38.8 (100)	5.5 (100)	88 (100)
1884-85 to 1888-89	24 (114)	341.6 (126)	50.7 (130)	7 (127)	133.4 (157)
1889-90 to 1893-94	26 (124)	400.6 (149)	64.3 (166)	8 (151)	172.6 (196)
1894-95 to 1898-99	31 (148)	522.1 (193)	86.4 (223)	11.7 (213)	244.8 (278)
1899-1900 to 1903-04	36 (171)	689 (251)	114.2 (294)	16.2 (293)	334.6 (380)
1904-05 to 1908-09	46 (219)	960 (355)	165 (423)	24.8 (451)	510.5 (580)
1909-10	60 (286)	1,151 (425)	204.1 (526)	31.4 (571)	645.9 (734)
1910-11	54 (270)	1,150 (425)	216.4 (558)	33.1 (602)	682.0 (776)
1911-12	50 (238)	1,195 (441)	201.3 (519)	32.9 (598)	677.5 (770)
1912-13	61 (290)	1,730.0 (442)	204 (525)	34 (618)	708.7 (805)
1913-14	64 (305)	1,309 (486)	218 (557)	36 (654)	744 (846)

The production of the mills has increased to a still greater extent. The following figures show the export of jute manufactures and the declared values for the quinquennial periods.

	Jute manufactures		Value in lakhs of Rs.
	Gunny bags in millions of number	Gunny cloths in millions of yards	
1879-80 to 1883-84	54.9 (100)	4.4 (100)	124.9 (100)
1884-85 to 1888-89	71 (140)	15.4 (350)	162.9 (130)
1889-90 to 1893-94	111.5 (208)	41 (922)	230.3 (232)
1894-95 to 1898-99	171.2 (312)	132 (4,136)	513 (416)
1899-1900 to 1903-04	206.0 (380)	427.2 (9,709)	826.5 (662)
1904-05 to 1908-09	251.8 (460)	698 (15,864)	1,442.7 (1,154)
1909-10	364.4 (664)	940.1 (21,366)	1,709.6 (1,366)
1910-11	460.9 (857)	955.3 (21,711)	1,699.4 (1,361)
1911-12	269.9 (525)	871.5 (19,807)	1,600.8 (1,282)
1912-13	311.7 (568)	1,021.8 (23,233)	2,237.1 (1,831)
1913-14	368.8 (672)	1,061.2 (24,118)	2,827.3 (2,264)

Up to the last quinquennial the exports of raw jute were marked by increase from year to year though the improvement was not so rapid as in the case of manufactures. A slight decrease in the exports occurred in 1909-10 as compared with the figures for the preceding quinquennial period and a further decline in 1910-11 but a marked recovery was made in 1911-12 which was accentuated in 1912-13 —

	Jute raw in millions of cwt.	
1879-80 to 1883-84	7.5 (100)	
1884-85 to 1888-89	8.9 (119)	
1889-90 to 1893-94	10 (138)	
1894-95 to 1898-99	12.3 (164)	
1899-1900 to 1903-04	12.7 (169)	
1904-05 to 1908-09	15.00 (201)	
1909-10	14.8 (195)	
1910-11	12.7 (169)	
1911-12	16.2 (216)	
1912-13	17.5 (233)	
1913-14	15.4 (205)	

The price of raw jute reached its highest point in 1908-09 the rate being Rs. 85 per bale, in 1907-08 it dropped to Rs. 42 per bale and the fall was accentuated in 1908-09 and 1909-10 the price having declined to Rs. 4 and Rs. 31 per bale respectively. In 1910-11 the price rose again to Rs. 41-8-0, to Rs. 51-4-0 in 1911-12 and further to Rs. 54-12-0 in 1912-13. The following are the quinquennial average prices per bale (400 pounds) of ordinary jute calculated from the prices current published by the Bengal Chamber of Commerce —

	Price of jute, ordinary per bale of 400 lbs. Rs. s. p.
1879-80 to 1883-84	23 8 0 (100)
1884-85 to 1888-89	23 3 2 (99)
1889-90 to 1893-94	32 6 5 (138)
1894-95 to 1898-99	30 12 0 (131)
1899-1900 to 1903-04	32 1 7 (137)
1904-05 to 1908-09	44 13 6 (191)
1909-10	31 0 0 (132)
1910-11	41 8 0 (177)
1911-12	51 4 0 (218)
1912-13	54 12 0 (233)
1913-14	76 12 0 (327)

The average prices of gunny cloth have been as follows —

	Price of Hessian cloth 10½oz. 40" per 100 yds Rs. s. p.
1879-80 to 1883-84	10 7 11 (100)
1884-85 to 1888-89	8 0 7 (77)
1889-90 to 1893-94	10 6 6 (99)
1894-95 to 1898-99	9 11 8 (98)
1899-1900 to 1903-04	10 2 10 (97)
1904-05 to 1908-09	11 14 1 (112)
1909-10	9 3 6 (88)
1910-11	9 5 8 (89)
1911-12	11 14 0 (113)
1912-13	16 6 0 (156)
1913-14	17 0 0 (162)

The 1915 crop.—During the past year much damage was done to the crop by floods and there was an estimated decrease in the average under jute mainly in Eastern Bengal of 991 421 acres. The final figures of output for the three provinces were as follows —

PROVINCE	BALES		Decrease
	1914	1915	
Bengal—			
Western	1 387 093	1 051 399	236 299
Northern	2 734 431	1 975 739	758 694
Eastern	5 235 89	4 79 128	1 756 759
Cooch Behar	13,247	72,335	62 902
Bihar and Orissa (including Nepal)	780 787	697 873	87 914
Assam	107 463	167 489	150 004
Total	10 491 555	7 428 738	3 102 772

Name of province	Estimated acreage under Jute		Decrease
	1914	1916	
Bengal—			
Western	467 199	297 369	169,830
Northern	805 511	591,385	264 126
Eastern	1,049 894	1,150 403	399 492
Cooch Behar	44,410	27 556	16 857
Bihar and Orissa	363 120	215 339	114 781
Assam	102,300	43 100	19,200
Total	3 349 437	2 365 101	984,286

The Jute Mills Association now one of the most important. If not the most important, of the bodies affiliated to the Bengal Chamber of Commerce, was started under the following circumstances—In 1886 the existing mills finding that in spite of the constant opening up of new markets, working results were not favourable, came to an agreement, with the late S E J Clarke, Secretary to the Chamber of Commerce, as trustee to work short time. The only mills which stood out of this arrangement were the Hooghly and Serajunga. The first agreement for six months dating from 15th February 1886 was subsequently renewed at intervals without a break for five years up to February 15 1891. The state of the market at the time of the renewal dictated the extent of the short time, which varied throughout the five years between 4 days a week, 9 days a fortnight and 5 days a week. Besides short time 10 per cent of the sacking looms were shut down for a short period in 1890. An important feature of this agreement was a mutual undertaking by the parties not to increase their spinning power during the currency of the agreement, only a few exceptions being made in the case of a few incomplete new mills.

Working days—With the introduction of the electric light into the mills in 1896 the working day was increased to 15 hours, Saturdays included, which involved an additional amount of cleaning and repeling work on Sundays. In order to minimise this Sunday work and give them a free Sunday an addition was got up in 1897 by the Mill European assistants to have the engines stopped at 2 or 3 p.m. on Saturdays. The local Government took the matter up but their action went no further than applying moral suasion backed by a somewhat half hearted threat. The Mill Association held meetings to consider the question and the members were practically agreed as to the utility of early closing on Saturdays, but more *two* could not trust themselves to carry it out without legislation. Unfortunately the Government of India refused to sanction the passing of a Resolution by the provincial Government under the Factory Act and the matter was dropped. Only a year

or two ago the Jute Mills Association in despair brought out an American business expert Mr J H Parks to advise them on the possibility of forming a jute trust with a view to exercising some control over the production and price of jute. Mr Parks came, and wrote a report which the Association promptly pigeon holed because the slump was over and the demand was so prodigious that there was no need to worry about the price of jute.

An Association styled the **European Jute Dealers Association**, has lately been formed in Calcutta to promote and to guard the common interests of its members as dealers in jute for local consumption. The members are dealers and brokers of jute for sale to the jute mills and around Calcutta. The first annual general meeting was held on the 1st October when a Committee consisting of the following gentlemen was elected for the year 1915-16 namely—Messrs R L B Gail, C D Stewart, F K Shuttle, G S Alexander & Morgan and A. Tosh. The Committee have since elected Mr George Morgan to be the Chairman of the Association for the year.

Effect of the War—The official review of the trade of India in 1914-15 says—It will be remembered that among the circumstances which added materially to the rapid development of the world's jute industry were the Crimean war in 1854-56 and the Civil war in America in 1861-63. It was anticipated on the outbreak of war that history would repeat itself, and that there would be a large demand for manufactured jute especially for military and transport purposes. This anticipation was fulfilled and by the end of the year under review Calcutta jute mills were never in a more prosperous state. The short time agreement among the Bengal mills to work five days a week from April 1914 came to a conclusion at the end of September. From the 3rd October the mills commenced a six day week some of them on the full double shift of 18½ hours and others on 11 hours single shift. The result of the exceptionally high level at which raw jute and jute goods had until then been selling had not only been to curtail the consumption of jute goods, but also to bring substitutes for jute such as textiles and textile within

the region of possibility. When, however, the price of the raw material reached its lowest level, most of the mills took advantage of the situation, and secured large stocks of cheap jute. The demand for manufactured goods during the months of August and September was not active and as a consequence the mills were unable to sell goods against their purchases. But later on the mills sold against their purchases at a large profit, especially after October, owing to the fact that during the latter half of the year a large amount of jute goods were manufactured to an extent which had never been previously known in India, and it is likely that as long as the war continues the mills here will be kept fully employed.

The extent of the jute industry and its importance to India may be gathered from the figures of the export of the manufactured articles—

		1913-14	1914-15
Bags	No. millions	369	388
Cloth	yards	1,061	1,057
Rope	1,000 cwts	83	64
Value of jute goods Rs. (lakhs)		28.2	20.82

During the year the exports amounted to nearly Rs. 28 crores or £17½ millions, representing about 58 per cent of the total value of exports of the articles wholly or mainly manufactured and about 15 per cent of the total exports of Indian merchandise. In the pre-war period the exports amounted to nearly Rs. 9 crores (£6 millions) or 35 per cent of the year's trade in jute manufactures against Rs. 8½ crores (£5½ millions) in the corresponding period of 1913-14. In the war period the value fell from Rs. 20 crores (£13½ millions) to Rs. 17 crores (£11½ millions), the decline being due not to a smaller volume in trade but to a great decrease in the price of finished goods in sympathy with lower prices of the raw material. The exports of gunny bags and gunny cloth amounted to 369 millions and 1,057 million yards, respectively against 389 millions and 1,061 million yards in 1913-14, the figures for the war period being respectively 28½ millions and 742 million yards against 243 millions and 742 million yards in the corresponding period of 1913-14.

GLASS AND GLASSWARE.

The total value of glass and glassware imported into India in 1914-15 fell by Rs. 117 lakhs to Rs. 142 lakhs, about 58 per cent of which trade was effected in the pre-war period. Hitherto Austria-Hungary has stood first among the exporting countries and Germany has been second. During the year the value of Japanese imports of glass into India has increased by Rs. 3½ lakhs to Rs. 19½ lakhs.

Glass manufacture in India consists of two well-defined classes: the indigenous household industry and the modern factory industry. The indigenous household industry which is represented in all parts of the country is chiefly concerned with the manufacture of cheap bangles. Glass manufacture in India on the modern factory system has hitherto been an uphill struggle against great difficulties. In Bengal, the Pioneer Glass Manufacturing Company Limited, of Titagarh, started work in 1890 and the Bengal Glass Company of Sodpur in 1898. They ceased working in 1899 and 1905, respectively. The Madras Glass Works founded in 1909 has ceased work, though it is hoped to restart it. A factory started in Hyderabad also proved a failure and its plant was taken over by the Glass Works at Ambala. The Himalayan Glass Works at Rajpur in the Dehra Dun district closed after three or four years' working in 1905, but was restarted later under new management. Finally the Upper India Glass Works at Ambala, which was started by Indian capitalists in 1895, was at first a failure. Since 1903, however, it has been much more successful. It established itself firmly in its earlier years by specialising in the manufac-

ture of bangle glass, and in this line it is interesting to record that the bangle glass of Ambala and Kirozabad has succeeded in capturing the market, whereas formerly large quantities of glass used to be imported from Belgium for this purpose. At the present time one or two glass factories only are working in India, and a new factory, the Western India Glass Works Limited, of Bombay is about to start work.

Records of the earlier ventures have shown that the failures in some cases were due in part at least to preventable causes prominent among which were (1) the lack of sufficient fixed capital and the consequent inability of the companies to meet their heavy initial expenses and (2) inexperience and lack of technical knowledge on the part of the promoters. But there are also certain real and special difficulties with glass manufacturers in India have to contend against. The principal difficulties are—(1) The temperature of India in the hot weather. (2) The difficulty of obtaining skilled labour for glass blowing. Both foreign blowers and men from local industries such as Nagana have been tried but neither have been entirely satisfactory. (3) There are considerable technical difficulties, such as the supply of a suitable quality of sand and a suitable alkali. With regard to the alkali local sources such as the salt of Northern India, have not yet given results adequate for the manufacture of high class glassware. At present imported bicarbonate of soda is mainly used. As this is imported from England there is no reason to anticipate any shortage of the supply. It is also probable that soda compounds will in time be locally manufactured in India.

The Handloom Weavers.

By F Booth Tucker

Next to agriculturists the handloom weavers of India rank second in numerical importance among her skilled industrial workers. In round figures about 11 million souls are dependent on this industry. From a position of prosperity and even affluence they have suddenly been reduced through no fault of their own but by circumstances over which they have no control, and which it was impossible for them to foresee, to a condition of indigence and even starvation. Taking a superficial view of the situation one might be tempted to say that the remedy is in their own hands. Let them forsake their homes and take service in the mills and the problem will be solved. But this would be a short-sighted and unwise policy. There are fundamental objections to it which cannot be overlooked.

What the handloom industry of India calls for is not annihilation but leadership. To us it is a noble and ancient industry which has been for many ages one of the main bulwarks of India's prosperity voluntarily to commit *harakiri* is a height of self-sacrifice of which even Japanese models would hardly approve. The mill owners of Lancashire would no doubt benefit greatly—at least for the time being—if they could persuade the foolish mill owners of India that in view of Lancashire's superior skill, intelligence, education, capital or other causes the latter ought promptly to commit suicide and if they could persuade the Government of India that in bolstering up the industry in its unequal struggle they were embarking in a wasteful and useless expenditure of money and energy and that their proper course would be to tax it out of existence or at least abandon it to its fate!

Training Schools

Unfortunately in the case of the voiceless handloom weavers the mill interests have to a large extent overpersuaded Government that it is useless to help them to sustain the unequal struggle. Nearly every handloom weaving school in India and elsewhere has sooner or later been converted into a training school for mill foremen and managers as giving to salaries of from Rs 60 to Rs 500. *What words when I remember that the managers of these institutions have been almost without exception themselves trained in mill schools to mill methods and have been accustomed to look down upon the handloom industry and to regard it as being doomed to extinction!*

Similarly when Government have appointed experts, or committees to investigate the question and to report on the advisability and best means of helping the handloom weaver to whom has the duty been entrusted? Almost invariably to mill experts whose verdict has been a foregone conclusion. They might well have saved themselves the trouble and expense. I have sometimes written to such persons myself and urged them to confer with our own experts, who have been engaged in the exclusive study of the problem for the last 7 or 8 years or to allow me an opportunity

of presenting personally the handloom weavers' side of the story and almost without exception they have been too busy, or have not been able to visit the centres suggested or have paid them a cursory and contemptuous call, while a more or less one-sided report has been presented which has frequently resulted in Government withholding its much-needed help from this struggling community and further generously subsidising the wealthy mill-schools!

Not that the two interests are necessarily opposed to each other any more than are the Infantry and Cavalry of an army in the field. While Indian mills are looking abroad for markets for their yarn the 11 million skilled weavers at their door are well worthy of their consideration and should form the most valuable market for their output. Mills that will study the requirements of this home field need not look outside the four corners of India for many a year to come.

What is wanted.

What the handloom weavers of India need is—

1 Leadership. They are like sheep with out a shepherd. The few leaders that have hitherto been supplied them have too often been wolves in sheep's clothing, who have failed either to understand their needs or win their confidence.

2 The second great need is instruction in improved methods.

3 The weaver must also be placed in touch with the markets of the world.

4 This will involve a generous expenditure of money by Government in doing for the weaver what he obviously cannot do for himself. But the outcome will abundantly repay the outlay.

Properly led, properly instructed and properly connected with the world's great cloth bazaar the weaver of India may yet again become India's pride and the merchants of the world may yet again vie with one another in seeking the products of his age-old skill.

The task is not nearly so difficult as it seems. The machinery exists but needs extension and expansion. There are some things which the weaver can trust and will do for himself. There are other things which must be done for him.

Leadership

1 He must be supplied with Leaders who know his needs and in whom he can safely trust. These leaders ought not save under exceptional circumstances to be chosen from his rivals. The mill-trained expert is, as a rule, of very little use to him and is often a positive source of danger. The leaders whom he needs must be in thorough sympathy with his cause, must understand his conditions, must include those who are able themselves to handle the shuttle and must not be mere students and theoreticians. And here I would like to say that it is highly dangerous for a

Presidency or State to allow its policy towards the handloom weaver to be dictated by a young graduate from a mill school. We should not dream of putting the cleverest University Graduate to fill the chair of a Commissioner or to dictate the policy of Government, because he had gained honours in Political Economy, Science, Languages or other elements of knowledge. And yet in not a few instances the destinies of the vast weaving community have been entrusted to the guidance of the merest tyros in this difficult art! What wonder that the ship has soon been wrecked and consequently abandoned, and then the cause regarded as hopeless.

The great majority of these Leaders will have to be selected from the weavers themselves and not from callow unfledged students of the theory of their art.

Suitable Schools Needed.

3 Therefore they must have suitable Schools. I say suitable because many of the schools established for their benefit have been anything but suitable. Frequently it has been necessary to close them for this very reason. The founder of one such brought the Governor of his Presidency to warn the weavers that if they failed to drink at the fountain of textile knowledge which Government had at great expense established for them, it would be his painful duty to stop its unvalued flow. One man could lead them to water but even a Government could not force the unwilling horse to drink. Soon afterwards the institution was closed, and the weavers of course were blamed for their stupidity.

By a suitable school I mean

(1) A school that is under the sympathetic management of a leader who understands the weavers' needs and can win their confidence.

(2) A school in which the teachers can themselves weave and can consequently be looked up to by the weavers.

(3) A school exclusively for weavers and not for mill-students, nor a combination of the two. A school in which the adult weaver is taken by the hand and taught improved methods. His advice, assistance, suggestions and objections should be encouraged, and he should be given the free opportunity to choose for himself the kind of implements, materials and methods which he himself may prefer within of course reasonable limits. He may not be able to read, or write, but when it comes to questions of his own particular art, he will usually exhibit a shrewdness, alertness and common sense, which should be developed and encouraged.

(4) Being a family man the adult weaver must receive such remuneration as he may require for the support of his family while learning improved methods.

(5) The school must be in close touch with the world's markets and must teach the weaver the kinds of cloth that it will pay him to make. The weaver is keenly aware to the commercial side of his undertaking, and will appreciate such assistance. The mere theoretical pedagogy is not enough in an ordinary educational

system, stunting too often our children's heads with useless knowledge, but in a weaving school he spells blue ruin to its best interests.

(6) The weaver ought to be helped by means of loans and time payments to become the owner of the improved implements of which he has been taught the use should he so desire. He should be allowed to select those which he himself prefers and should be enabled to pay for them by instalments.

(7) Travelling branches should be established which can go from village to village at regular intervals explaining methods, inviting criticism, establishing centres and helping to market the produce of the weavers, and to obtain for them good yarn at reasonable prices.

Marketing of Produce.

3 The marketing of produce is not so difficult as might at first sight appear. Each centre should gradually work up a market of its own and when one line ceases to yield a reasonable profit, another should be substituted, as the weavers become better organized and trained, the market will gradually run after them.

We have ourselves established in connection with our various weaving schools a trading agency which takes over the whole of their output, and whose business it is to find out what the markets require. It works on a strictly business basis and greatly facilitates the working of our schools.

It is now some eight years since the Salvation Army took up the cause of the handloom weavers of India and I think that we may claim to have gained a thorough working knowledge of their needs and to have largely won their confidence.

One of our Officers has invented a loom which has been generally accepted as the best and fastest handloom in existence. What is even more important, it works so easily that a child can use it. Thus all the members of a weaver's family can work it in turn and bring their output almost to a level with that of a mill. Fast days for throwing the shuttle can be obtained from Rs. 7 and upwards, and the complete loom from Rs. 35 and upwards.

A fast loom is of no use to a weaver without a warping machine that can turn out long warps. For this we have a very simple device suitable for village use. One warping machine can keep some twenty fast looms supplied with warps. The cost of this machine is only Rs. 30.

The preparation of thread from cotton wool or silk has also received our attention, and improved methods have been introduced which are greatly appreciated by the weavers and villagers. Improved spinning and reeling machines can be obtained for Rs. 15 and upwards.

The price of the implements has been brought down to the lowest point consistent with good workmanship and materials. The struts upon a fast loom is very severe, and unless it is well made it soon goes to pieces. The weavers themselves well understand this and prefer a good machine, even if it costs more.

Salvation Army Work.

We have already 20 centres of our own in India where weaving, warping and silk reeling are being taught, while we have helped to start many others of a similar character. The influence of our work has spread to other lands, and we have supplied looms or weaving masters to Ceylon, the Straits Settlements, Burma, China and Rhodesia. I would close with quoting the testimony of a Burmese merchant who came over to our Luddiana Weaving School to study the suitability of our methods for his country.

"I arrived here on the 31st March 1913 to study the workings of the School and Looms and on the 2nd of April I, in two days time, found to my surprise that I could weave at

the rate of fifty picks per minute. A little more care and attention one could weave on these looms thoroughly in a fortnight. I at once placed an order for 5 looms, one warping machine and accessories, amounting in all to about Rs. 1,100 which were done and promptly despatched to my entire satisfaction. I am leaving with regret on Saturday. The school management and discipline are thorough and up-to-date. The Manager is hard working, energetic and industrious. I fear he and his subordinates are overworked. The Manager is generous and attentive. I am surprised to find the 8 A. Officers here undergoing a life of sacrifice from choice. The way he and his staff do their duties cheerfully made me a disbeliever, love respect and honour them." (Sd.) MAUNG HUA PE, Mandalay, Burmah.

SILK.

In the early days of the East India Company the Indian Silk trade prospered greatly and various sub-tropical races of the Silkworm were introduced. But the trade gradually declined for the following reasons—

In the seventeenth and eighteenth centuries India's chief competitor in the silk trade was the Levant Company. Successful efforts, however, were made to acclimatise in Europe one or two races of a temperate worm procured from China and Japan. When sericulture became part of the agriculture of France and Italy a quality of silk was produced entirely different from that of India and Turkey and its appearance created a new demand and organised new markets.

All subsequent experience seems to have established the belief that the plains of India, or at all events of Bengal, are never likely to produce silk that could compete with this new industry. On the lower hills of Northern India, on the other hand, a fair amount of success has been attained with this (to India) new worm, as, for example in Dehra Dun and Kashmir. In Manipur it would appear probable that *Bombyx mori*, possibly obtained from China has been reared for centuries. The caprices of fashion has, from time to time powerfully modified the Indian silk trade. The special properties of the *korad* silk were formerly much appreciated but the demand for them has now declined. This circumstance together with defective systems of rearing and of hand reeling and weaving, accounts largely for the present depression in the mulberry silk trade of India.

Mulberry feeding worms.—Sir George Watt states that in no other country does the necessity exist so pressingly as in India to treat the subject of silk and the silk industries under two sections viz. *Bombycidae* the domesticated or mulberry feeding silk worms and *Saturniidae*, the wild or non-mulberry feeding worms. In India the mulberry worm (*Bombyx Mori*) has been systematically reared for many centuries, there being six chief forms of it. In the temperate trade of India various forms of *Morus*

alba, (the mulberry of the European silk producing countries), are grown specially as food for the silkworm. This is the case in many parts of the plains of Northern India, Beluchistan, Afghanistan, Kashmir and along the Himalayas at altitudes up to 11,000 feet. The other species even more largely grown for the Indian silkworm is *M. indica* of which there are many distinctive varieties or races. This is the most common mulberry of Bengal and Assam as also of the Nilgiri hills.

India has three well known purely indigenous silkworms—the *tasar*, the *muga* and the *eri*. The first is widely distributed on the lower hills, more especially those of the great central tableland and feeds on several jungle trees. The second is confined to Assam and Eastern Bengal, and feeds on a laurel. The third exists in a state of semi-domestication, being reared on the castor-oil plant. From an art point of view the *muga* silk is the most interesting and attractive, and the cocoon can be reeled readily. The *eri* silk on the other hand is so extremely difficult to reel that it is nearly always carded and spun—an art which was practised in the Rhael Hills of Assam long before it was thought of in Europe.

Experiments and results.—Numerous experiments have been made with a view to improving sericulture in India. French and other experts are agreed that one of the causes of the decline of the silk industry in India has been the prevalence of diseases and parasites among the worms, the most prevalent disease being pebrine. M. Lafont who has conducted experiments in cross breeding, believes that improvement in the crops will be obtained as soon as the fight against pebrine and other diseases of the worms is taken up vigorously by the producers of seed and the rearsers of worms while improvement in the quality of the cocoons will be obtained by rearing various races pure and cross breeds.

In Kashmir and Mysore satisfactory results have been obtained. In the former State sericulture has been fostered on approved European principles with Italian reeling machi-

very, seed being imported annually on a large scale. In 1897 in Mysore Mr Tata, after selecting a plantation and site for rearing houses, sent to Japan for a Superintendent and trained operatives. The Mysore authorities have made a grant of Rs. 2,000 a year to the Tata firm in return for instruction given to the people of Mysore in Japanese methods of growing the mulberry and rearing the insects. The products of the Mysore state are exported to foreign countries from Madras. The work of the Salvation Army is also noteworthy in various parts of India. They have furnished experts, encouraged the planting of mulberry trees, and established several silk schools. The draft prospectus has been issued on a silk farm and Institute to be started at Simla under the auspices of the Salvation Army. The Lieut. Governor of the Punjab has permitted the school to be called after his name and the Punjab Government is making a grant of Rs. 2,000 this year towards the expenses. Sir Dornabji Tata has also made a donation of Rs. 1,000. The Bengal Silk Committee under the guidance of some French experts have conducted a breeding experiment with a view to establish a multivoltine hybrid of European quality. There is a Government sericultural farm at Berhampore where it is said a pure white multivoltine of silk worm is reared. The results of the Bengal Committee's labours may be summed up as follows: the only really effective method of dealing with the problem is to work up gradually to a point at which the whole of the seed cocoon necessary for the province will be supplied to rearsers under Government supervision and to establish gradually a sufficient number of large nurseries throughout the silk districts of the province.

In 1915 there was issued by the Agricultural Research Institute, Pusa a Bulletin (No. 48 of 1915) entitled "First Report on the Experiments carried out at Pusa to improve the Mulberry Silk Industry." In a short Preliminary note Mr. Bainbridge Fletcher (Imperial Entomologist) explains that the object of the Bulletin is to place on record some of the more important experiments which were commenced at Pusa in the year 1910 and have since been carried on in the endavour to fix a superior multivoltine race of the Mulberry Silkworm which would not degenerate and which would yield silk better both in quality and output than that supplied by the multivoltine races which are reared at present.

Central Nurseries.—The report of the Agricultural Department, Bengal for the year ending June 30 1913, gives an account of a scheme which has been devised with the object of reclaiming the silk industry. The aim of the scheme is gradually to establish throughout the silk districts a sufficient number of central nurseries with rearing houses and thus enable the whole of the seed cocoons required in the

province to be supplied under Government supervision. It is believed that this is the only really effective method of dealing with the problem. A number of the existing smaller nurseries were closed during 1913 and others are being converted into enlarged and improved central nurseries with rearing houses complete. The ultimate success of the scheme depends largely on the willingness of the rearsers to pay an adequate price for pure seed.

A pamphlet was published in 1915 by Mr. M. N. De Bricolateral Assistant at Pusa which contains practical hints on improved methods which are recommended to be used for reeling mulberry silk in Bengal and other silk producing districts. It has been found that by the provision of two small pulleys to the ordinary Bengal type of reeling machine superior thread can be obtained the cost of the extra apparatus is merely nominal (five or six annas per machine) whilst the suitability of the machine for cottage workers is maintained. By attention to such simple points as the stifling and storage of cocoons and the temperature and quality of the water used in the reeling pans great improvements can be effected in most silk centres in Bengal and other districts.

Exports of Silk.—The exports of raw silk both from mulberry and non mulberry feeding silkworms in 1914-15 amounted to 82,700 lbs. valued at Rs. 8 lakhs against 160,200 lbs. valued at Rs. 15½ lakhs in 1913-14 while that of chasam (waste) and cocoons fell from 1,042,900 lbs. valued at Rs. 9½ lakhs to 433,800 lbs. valued at nearly Rs. 4 lakhs the total value of raw silk (including chasam and cocoons) declined by 52 per cent to Rs. 12 lakhs. The decrease is most marked in the Exports to France (which usually takes 70 per cent of Indian raw silk) from 712,110 lbs. to 187,209 lbs. while those to the United Kingdom rose from 276,502 lbs. to 287,630 lbs. The fluctuations are attributable to the war.

The export of silk manufactures in 1914-15 was valued at Rs. 3½ lakhs as compared with Rs. 5½ lakhs in 1913-14. Mixed goods accounted for a loss of Rs. 30,000 and piecegoods of Rs. 1½ lakhs. The United Kingdom the chief customer of Indian silk piecegoods took 80,200 lbs. worth Rs. 77,000 in place of 162,800 lbs. valued at Rs. 1½ lakhs in 1913-14.

Imperial Silk Specialist.—At the end of 1915 it was decided that the first step to be taken to revivify the silk industry should be the employment of a qualified expert who after a careful study of the conditions not only in India but in other silk producing countries will formulate recommendations for the consideration of Government. With the approval of the Secretary of State Mr. H. Maxwell-Lefroy formerly Imperial Entomologist and now Professor at the Imperial College of Science and Technology South Kensington has been appointed to the temporary post of Imperial Silk Specialist.

Indigo.

Indigo dyes are obtained from the Indigofera, a genus of Leguminosae which comprises some 800 species, distributed throughout the tropical and warm temperate regions of the globe. India having about 40. Western India may be described as the headquarters of the species, so far as India is concerned, 23 being peculiar to that Presidency. On the eastern side of India, in Bihar, Bengal, Assam and Burma, there is a marked decrease in the number of species but a visible increase in the prevalence of those that are met with.

There is evidence that when Europeans first began to export the dye from India, it was procured from the Western Presidency and shipped from Surat. It was carried by the Portuguese to Lisbon and sold by them to the dyers of Holland and it was the desire to obtain a more ample supply of dye-stuff that led to the formation of the Dutch East India Company and so to the overthrow of the Portuguese supremacy in the East. Opposition to indigo in 17th century Europe was keen owing to its interference with the wool industry but it was competition to obtain indigo from other sources than India that led to the first decline of the Indian indigo industry. In the middle of the eighteenth century when the cultivation of indigo in the West Indies had been given up—partly on account of the high duties imposed upon it and partly because sugar and coffee were found to be more profitable—the industry was revived in India and as one of the many surpluses of the industry the province of Bengal was selected for this revival. It had no sooner been organised, however, than troubles next arose in Bengal itself through misunderstandings between the planters, their cultivators and the Government which may be said to have culminated in Lord Macaulay's famous *Memorandum* of 1837. This led to another migration of the industry from Lower and Eastern Bengal to Tirhut and the United Provinces. Here the troubles of the industry did not end, for the researches of the chemical laboratories of Germany threatened the very existence of any natural vegetable dye. They first killed the madia dye of Europe, then the safflower the lac and the al dyes of India and are now advancing rapidly with synthetic indigo intent on the complete annihilation of the natural dye. Opinions differ on many aspects of the present vicissitude meantime the exports from India have seriously declined and salvation admittedly lies in the path of cheaper production both in cultivation and manufacture. These issues are being vigorously faced and some progress has been accomplished, but the future of the industry can scarcely help being described as a great uncertainty. The issue is not the advantage of new regulations of land tenure but one exclusively of natural versus synthetic indigo. (See Watts' Commercial Products of India.) In February 1915 a conference was held at Delhi when the possibility of availing the natural indigo industry was considered from three points of view—agricultural research and commercial. The agricultural or botanical side of the question is fully discussed by Mr and Mrs Howard of Poona in *Bulletin* Nos 51 and 54 of

the Agricultural Research Institute. Perhaps the most important problem for the natural indigo trade to solve is the marketing of the dye in the form most suited to the dyers. Bihar indigo according to a British Dyer whose views are entitled to respect, dye a fuller shade than other synthetic indigo or indigo refined from plant-indigo. It is further stated that 60 per cent of Bihar indigo dyes a fuller shade than 70 per cent Dutch-Java.

Decline of the Industry.—Since synthetic indigo was put upon the market, in 1897, the natural indigo industry of India has declined very rapidly apart from slight recoveries in 1908-09 and 1911-12. The decline continued without a break until the revival due to the impossibility of obtaining artificial dye in sufficient quantities during the war. The figures for the last few years may be contrasted with those for the five years ending in 1897 in which the area under indigo averaged 2,400 square miles and the value of the exports over £3,000,000 a year.

	Area under Indigo	Quantity Exported	Value of Exports
	Acres	Cwts	£
1901-02	791,000	49,750	1,234,887
1902-03	648,000	65,377	893,735
1903-04	707,000	60,410	717,468
1904-05	477,000	49,252	596,405
1905-06	384,000	31,186	390,915
1906-07	423,000	35,192	469,845
1907-08	294,000	32,430	424,849
1908-09	284,000	24,948	326,968
1909-10	289,000	18,001	234,544
1910-11	268,000	18,049	223,629
1911-12	2,100,000	19,155	250,530
1912-13	2,000,000	11,677	147,000
1913-14	170,000	10,880	142,000

Present Position.—The crop is most important in Bihar and Madras. In the Punjab and United Provinces it now occupies little over 100 square miles altogether. In Bengal the crop is largely raised by British planters, in the other provinces chiefly by native cultivators. Scientific research work on questions connected with cultivation and manufacture has been carried out by the Bihar Planter's Association with the aid of a grant from Government since 1897. It is hoped that good results may be obtained from the biological line of work—on plant breeding and physiology—recently taken up. But the official *Review of the Trade of India* in 1913-14 says that "it would seem probable that unless great improvements can be effected in cheapening the method of pro-

duction, either by selection of seed yielding the highest percentage of indigotin, or by chemical improvement in manufacture, or in similar ways, the industry is unfortunately doomed."

The average wholesale price of Indigo in Calcutta in recent years is as follows:—

1913	Rs. 338 per cwt
1914 (July)	184 "
1914 (Nov)	458 "
1915 (March)	632 "

Crop Forecast.—The Director of Statistics in his first memorandum on the crop for the season 1915-16 states that the season has, on the whole, been favourable except in Bihar and Orissa and in the Punjab. The crop has been adversely affected by the recent floods in Bihar and Orissa and in the Punjab by the deficiency of rainfall and the shortage of canal water. All the provinces except the Punjab show an increase in the area sown, the largest increase being in Madras and the United Provinces.

Details for the provinces are given below:—

Province	Area in acres (First forecast)	Pro- visional estimate of yield in cwt.	
	1915-16	1914-15	1915-16
Bihar and Orissa	60 800	38 900	7 300
Madras	124 000	38,500	24,000
Punjab	13,500	21 000	1 300
United Provinces	46 500	12 300	4 000
Bombay and Sind (including native States)	4,700	4,500	1 200
Bengal	1 600	1 300	200
Total	258 100	116,500	38 500

Tea.

Tea cultivation in India is chiefly in Assam, Bengal and Southern India the cultivation elsewhere being comparatively unimportant. The latest available official general statistics are those for the year 1914. They show a total area of 622,600 acres under tea which is nearly 2 per cent. more than in 1913. Of this area, 596 500 acres were plucked in 1914. The total number of plantations was 4,405. The area under cultivation has increased in the last 10 years by 18 per cent. and the production by 41 per cent. The average production per acre for the whole of India, excluding Burma (where the produce of the tea gardens is almost wholly converted into wet picked tea which is used as a condiment) was 554 lbs in 1913 and 1914, as compared with 543 lbs in 1912.

Area and Production

The total area under tea in 1914 was divided between the different Provinces as follows:—

Assam—	Acres
Brahmaputra Valley	281 900
Surma Valley (Dachar and Sylhet)	144,148
Total, Assam	376 048
Bengal	159 034
Bihar and Orissa (Chota Nagpur)	2,180
United Provinces	7 994
Punjab	9 820
Madras	26,245
Tamilnad and Cochin	38,809
Burma	2,098
Grand Total	622 628

The total production in 1914 was 312,821,000 lbs., divided between the different parts of India as follows:—

	Lbs.
Assam	206,227 000
Bengal	75 478 000
Southern India	34,818 000
Northern India	4 821,000
Bihar and Orissa	222,000
Total	312,821,000

Exports

The following were the exports in 1914 i.e. of Indian tea by sea:—

	Lbs.
United Kingdom	237 303 792
Russia	19 638 087
Other European Countries	917 029
Egypt	687 082
Elsewhere in Africa	725 455
Canada	10 950 615
U S A	2,737 534
Rest of America	223 671
Ceylon	3,262,620
China	8,308 902
Asiatic Turkey	1 229,826
Rest of Asia	3 762 923
Australasia	10 990 605
Total by Sea	300 771 081

The exports by land were as follows:—

Afghanistan	682,364
Total by land	1 785 616

The sea and land exports together make, therefore a

Grand Total of 302,556 697

The total quantity of Indian tea imported into the United Kingdom is not consumed there a considerable portion being re-exported. The re-exports of Indian tea from the United Kingdom in the past five years have been as follows:—

1910	18 587 000 lbs
1911	17 997 000
1912	19 368,000
1913	21,830 000
1914	30 399 000

The largest quantity of re-exports last year went to Holland. Next came Canada then the United States and Russia. It was discovered that the ultimate destination of the tea sent to

The principal customers—Holland, Sweden and Denmark—was Germany and Austria. Germany is not a tea drinking nation but her troops wanted it. Government first placed an embargo on these re-exports but as it was proved that Holland could supply Germany with any quantity of tea from Java the embargo was withdrawn.

Features of the Trade.

The most striking features of the trade in 1914-15 are the following. The total exports by sea improved by eleven million pounds or

nearly four per cent, as compared with 1913-14. Shipments to the United Kingdom, to which 72 per cent of the exports of tea is directed, increased by 28,231,000 lbs. or 13.6 per cent. The total exports to Europe excluding the United Kingdom, showed a net decrease of 14,080,000 lbs. as compared with the year 1913-14. In consequence of the disorganization of shipping caused by the war the trade figures are regarded as quite satisfactory. The decrease in exports to Russia and other importing markets was made good by the increased shipments to the United Kingdom.

Quantity of Exports—

The following table shows the quantity of Tea exported by sea and by land to Foreign Countries from India, Ceylon and China in the years 1896-97 to 1914-15 with variations in index numbers taking the figure of 1896-97 as 100—

	India	Ceylon *	CHINA †	
			Black and green	Brick, tablet & dust
	lb	lbs	lbs	lbs
1896-97	100,421,245 [100]	110,085,194 [100]	104,538,953 [100]	75,527,383 [100]
1897-98	152,344,905 [101]	114,460,318 [104]	137,097,000 [130]	75,781,867 [100]
1898-99	158,519,488 [105]	122,395,519 [111]	147,967,200 [142]	84,017,007 [111]
1899-1900	177,163,969 [118]	129,661,904 [118]	153,669,067 [146]	71,205,067 [94]
1900-01	192,300,658 [123]	149,264,603 [135]	144,270,933 [140]	52,190,667 [69]
1901-02	182,594,856 [121]	144,276,604 [131]	119,390,000 [114]	42,740,533 [56]
1902-03	183,710,951 [122]	150,820,707 [137]	128,226,933 [123]	85,112,400 [112]
1903-04	209,652,150 [139]	149,227,236 [135]	140,607,967 [134]	83,813,600 [110]
1904-05	214,500,325 [142]	155,029,553 [140]	132,366,715 [126]	61,423,733 [81]
1905-06	218,770,360 [144]	171,256,03 [155]	112,150,515 [107]	70,784,267 [94]
1906-07	236,030,328 [157]	171,554,110 [156]	108,884,114 [104]	75,506,113 [100]
1907-08	258,187,826 [161]	181,126,298 [164]	130,022,268 [124]	54,940,000 [73]
1908-09	230,049,128 [155]	181,436,718 [166]	129,260,733 [123]	40,845,733 [54]
1909-10	250,521,084 [159]	189,555,954 [172]	120,174,800 [115]	9,617,600 [13]
1910-11	256,432,614 [160]	188,253,117 [170]	12,947,714 [12]	84,108,943 [111]
1911-12	263,515,774 [172]	184,720,34 [168]	17,748,815 [169]	5,251,407 [7]
1912-13	281,815,329 [181]	186,632,380 [169]	127,820,800 [122]	69,739,200 [92]
1913-14	291,715,041 [194]	197,419,430 [179]	103,035,000 [98]	70,081,600 [93]
1914-15	302,568,697 [201]	191,838,940 [174]	114,689,200 [110]	84,307,738 [111]

* The figures for years previous to 1903-04 relate to the calendar year as it has been found impossible to procure complete data for the official year.

† For calendar year.

The following table shows the consumption of Indian tea in India —

Year	Lbs.	Year	Lbs.
1909-10	13 477,297	1912-13	19,805 560
1910-11	14,224 808	1913-14	22,797 000
1911-12	15 294,472	1914-15	19 291,000

The following statement illustrates the variations in prices of the three principal grades of tea sold at the auction sales in Calcutta in 1938 and the five years ending 1914 the average price of 1901 to 1910 being taken as 100 in each case. The figures represent the average of the prices per pound of tea from all districts at each sale —

Year	Broken Pekoe		Pekoe		Pekoe Souchong		Average for all description	
	Price.	Vari- ation	Price	Vari- ation	Price	Vari- ation	Price	Vari- ation
	As p		As p		As p		As p	
1888	10 3	150	6 1	107	8 3	123	8 8	124
1910	" 3	110	7 0	119	6 4	105	7 10	112
1911	7 9	117	7 7	129	6 9	133	7 11	113
1912	7 5	112	6 11	114	5 9	113	7 8	110
1913	8 1	102	7 5	106	6 10	135	8 2	117
1914	7 10	110	7 8	130	6 11	136	8 3	118

Capital and Labour

The number of persons employed in the industry in 1914 is returned as 898 permanently employed, and 58 602 temporarily employed. Compared with the returns of the previous year there is an increase of 15 355 permanent employees and a decrease of 5 777 in the number of temporary hands. The capital of joint stock companies engaged in the production of tea amounted to about Rs. 80 crores or over £20 1 millions, viz. —

Rs

Companies registered in India 4 30 56 603

Companies registered in the United Kingdom (£17,284 3 8) 25 92 65 221

The Government of India report on the production of tea in India in 1914 which contains the latest available official returns states that of 98 companies registered in India, which have an aggregate paid up capital of Rs. 10 lakhs, 91 declared dividends for 1913 amounting to 17 7 per cent on the aggregate capital of Rs. 2 82 lakhs. 86 companies have up to now declared dividends for 1914, amounting to 25 6 per cent on their aggregate capital of Rs. 2 60 lakhs. The value per Rs. 100 of joint stock capital as calculated on the prices of the shares of 62 companies quoted in the Calcutta share market was Rs. 166 in March 1914 and of 65 companies was Rs. 181 in March 1915. Similar details are available regarding 65 companies registered in the United Kingdom with a total capital of £10 4 millions (Rs. 15 83 lakhs). The total dividends declared in 1913

by 60 companies out of them with an aggregate capital of 4 0 2 millions (about Rs. 15 28 lakhs) amounted to 13 3 per cent. In 1914 the dividends so far declared by 42 companies came to 8 4 per cent on their aggregate capital of about 28 7 millions (Rs. 12 91 lakhs). Messrs Barry and Co. of Calcutta issued in June 1915 a summary of 102 joint stock tea companies incorporated in Calcutta representing a total paid up capital of Rs. 3 15 60 8 0. It shows a surplus on the year's working exclusive of commission on profits and distribution interest of Rs. 60 37 000 the average profit being 29 7 per cent on the capital employed. Out of the above sum dividend have been paid representing an average return to shareholders of 16 8 per cent.

The prospects of the tea industry continue bright. The demand for supplies for troops complied with the prohibition of the manufacture of spirits in France and of the sale of vodka in Russia will no doubt result in a larger demand. It will, according to some, be a demand which may temporarily outstrip production. The exports by sea from British India of Indian tea from April to August 1915 were 14 per cent higher than in the corresponding period (April to August) of 1914.

The exports in the five months of 1915 were 11 638 000 lbs more than in the corresponding period of 1914 and 16 136 000 lbs. more than the normal. Owing to the times being abnormal it is unsafe to estimate with accuracy the immediate future of the tea position.

The history of the introduction of coffee into India is very obscure. Most writers agree that it was brought to Mysore some two centuries ago by a Mohammedan pilgrim named Baba Budan, who on his return from Mecca brought seven seeds with him. This tradition is so universally believed in by the inhabitants of the greater part of South India, that there seems every chance of its being founded on fact. About the beginning of the 18th century there is no doubt coffee had found its way to India and in 1828 a charter was granted to Fort Gloster near Calcutta, authorizing it to become a cotton mill a coffee plantation and a rum distillery. Some of the coffee trees planted in fulfillment of that charter are supposed to be still alive and about the same time coffee was successfully grown in the Botanic Garden, Calcutta but the industry of coffee planting nowhere found an abiding place on the plains of India but migrated to the hills of South India, in Mysore more especially and thus into the very region where tradition affirms it had been introduced two centuries previously.

The first systematic plantation was apparently Mr Cannon's near Chikmagalur. This was established in 1830. It is supposed however that Major Bevan may have actually grown coffee on the Wynad at a slightly earlier date and that Mr Lockhart's Shevaroy plantation bears the same date as Mr Cannon's. In 1840 Mr Gleason formed a plantation at Mannanoddy and in 1840 plantations were organised on the Nilgiri hills.

The Position of the Industry.—The reported area under coffee has shown a continuous diminution since 1898. According to the

agricultural statistics, the total in British India fell from 188 square miles in 1901-02 to 148 square miles in 1911-12, while for Mysore the corresponding figures were 195 and 167 square miles. It is reported that in some of the coffee-growing districts coffee is giving way to tea, or, where the altitude is not prohibitive, to rubber. The advent of large supplies of cheap Brazilian coffee in the markets of Europe has, by bringing down prices, no doubt injured the coffee industry of India very seriously, but the following figures of export trade show no marked change in the position since 1902—

	Owts.
1902-03	289 165
1903-04	291 254
1904-05	329 647
1905-06	380 182
1906-07	228 094
1907-08	244 234
1908-09	302,022
1909-10	252 645
1910-11	272,249
1911-12	241 085
1912-13	28 000
1913-14	1,00 000
1914-15	290 000

The exports to the United Kingdom have in the last few years fallen off considerably, there has been a great diminution in the trade with France, but exports to other Continental countries have shown some increase. No estimate of the quantity of coffee consumed in India can be given. During the 10 years ending 1913-14 the price of Indian coffee has risen from £3. 1 to £3-18-10 per cwt. a rise of 17 per cent.

OILS AND OIL CAKES.

The value of non-essential oil seeds exported from India in 1914-15 was £92 millions (59,000 tons) against £17 millions (15,000 tons) in the previous year. A pamphlet on the subject recently published by the Commercial Intelligence Department points out that it is both economically and industrially unsound for India to export her oil seeds instead of manufacturing the oils and oil cakes in India. It allows other countries to reap the manufacturers' profits and at the same time deprives Indian agriculture of the great potential wealth as cattle-food and manure contained in the oil cakes. An immense quantity of oil is, as a matter of fact, already manufactured in this country by more or less crude processes. The age-old methods worked by hand-cakes and presses worked by hand exist in all parts of the country and supply most of the local demand for oil. There has also been a great increase in recent years in the number of oil mills worked by steam or other mechanical power. These crush all the commoner oil seeds and development has been especially marked in the case of mustard oil, castor oil and groundnut oil. In spite of all this there has been a perceptible diminution in the export of oil from India, particularly of coconut oil and linseed oil and an increase in the export of oil seeds, which is particularly marked in the case of copra and groundnuts. The situation created by the War has naturally led to much discussion of the possibility of developing on a large scale the existing oil-milling industry in India.

There are three difficulties with which any proposal to develop in India an oil-milling industry on a great scale is faced. In the first

place there exist high protective tariffs in European countries which encourage the export from India of the raw material rather than the manufactured product. Secondly there is a better market for the oil cake in Europe than in India and the freight on oil seeds is less than the freight on cake. Thirdly it is much easier and less expensive to transport oil seeds by sea than it is to transport oil. While this has been the position in the European markets, Indian-made oils other than coconut oil have made enough headway in Eastern markets to suggest the possibility of a development of those markets.

The problem of finding a market for oil cakes is equally important. The value of oil cakes is more better appreciated in Europe than in India. The Indian cultivator is prejudiced against the use of machine-made cake as a cattle food or as manure because he considers that it contains less oil and therefore less nourishment than the village-made cake. He is therefore unwilling to buy it except at a reduced price. His prejudices on this point have no justification in fact since experts are agreed that mill cake is a better food for cattle than village-made cake. Even when the mill cake contains less oil than the village cake there is still more oil in the cake than cattle can digest. The excess of oil in the village cake, where it exists, is a drawback and not an advantage to the use of the cake as food. A considerable amount of demonstration work has been done by the Agricultural Departments of Government in order to remove the cultivator's prejudice and there is said now to be an increasing demand for most classes of mill cake.

The Forests of India.

The necessity of protecting the vast forest areas in India and Burma was first recognised in the Madras Presidency nearly a century ago when steps were taken to protect on a limited scale the more valuable areas in the Anamallais while in December 1886 Doctor Cleghorn was appointed the first Conservator of Forests in that Presidency. It was not, however, until 1850 that Lord Dalhousie laid down a definite policy with the object of affording more widespread protection to the vast areas of valuable forest in British India. The action taken by the Supreme Government came none too soon for already in many localities the wanton hack log by the local population and even more so by timber contractors had reduced the forests to a state from which they could not be expected to recover for many years even under the strictest protection.

Recruitment of the Staff

In order to introduce a system of conservative management on scientific lines it was of first importance to collect a staff of trained foresters, and as no forest training college existed at that period in England, the Government of India as a commencement, enlisted the services of three German Forest Officers. The first of these to come to India was the late Sir Detrich Brandis K.O.E. F.R.S. and it was to his extraordinary energy and abilities that a sound foundation was originally laid to the scientific management of the State forests. Soon after his arrival in India, the staff was materially strengthened by the recruitment of officers from the Indian Army. In 1869 the first batch of technically trained English forest officers joined the service, having received their training either in Germany or France, and this system of continental training remained in force until 1878 after which the training was carried on entirely at the National Forest school of Nancy. The first batch of Coopers Hill trained foresters arrived in India in 1887 and the last in 1907 after which date the training took place at Oxford University and later also at the Universities of Cambridge, Edinburgh and Dublin. In this way the Government of India have been able to collect by degrees a highly trained staff of men to carry on the administration of their State forests. The total strength of the Imperial Establishment at the present time is 257, of whom 29 are administrative officers and 219 Executive officers, among the latter are included Inspectors and Research Officers who are employed at the Forest Research Institute Dehra Dun.

In order to keep pace with the recruitment of the superior staff, a Forest School was opened in 1878 at Dehra Dun for the training of Forest Rangers. Recently this School has been converted into a College and the instruction extended to include a course for training men for the Provincial Services. Besides the Forest College at Dehra, two new Rangers' Schools have been established, one at Pymmaru in Burma and the other at Coimbatore in Madras. Besides this nearly every Province has established a local Forest School for the training of the lower subordinate establishment.

Area of State Forests.

The forests belonging to the State covered in 1913 14 246 612 square miles or roughly one-fourth of the whole of India and Burma. Of this 96 297 square miles are Reserved Forests 8 390 square miles Protected Forests and 140 925 square miles Unclassed forests, by far the greater portion of the latter class occurring in Burma. The distribution of these areas is by no means uniform, the majority being found in Burma, Assam, Northern Bengal and along the foot of and extending into the Himalayas from the Nepal frontier westward through the United Provinces and the Punjab. In the Gangetic valley in the plains of the Punjab in Sind and Rajputana few forests occur except along the rivers, nor does one come across large wooded tracts until one enters the Central Provinces and the Godavari catchment area. From there southward in the Satpuras and throughout the North and South Deccan there exist well distributed areas of forests though generally not in large blocks while on the Western Ghats, in the Nilgiris and Anamallais are found some of the finest tracts of forests of India proper. The East Coast of India is fairly well stocked with forest growth, especially in the Godavari basin to the west of Cuttack and Puri and again in the Sunderbans, while the Andaman Isles are densely wooded.

Revenue Expenditure and Outturn.

The gross Revenue from State forests in 1913 14 amounted to Rs. 3 38 01,545 while the expenditure stood at Rs. 17 4,456 giving a net revenue of Rs. 1 57 58 090. The total outturn of timber and fuel in that year amounted to 294 million cubic feet out of which 19 894 872 cubic feet of fuel and 4 299 810 cubic feet of timber were given free to the local population. The number of bamboos removed came to nearly 802 million valued at 13 lakhs of rupees and the number of cattle grazed amounted to 15 674 598 while the total revenue derived from Minor Products was 107 lakhs of rupees.

From the above figures it will be readily understood that not only is the revenue realised by the State considerable but that the handling of such large amounts of Forest Produce requires a competent staff of officers.

Management.

The system under which the State forests are managed varies in different Provinces. In all cases, however, the aim of the Forest Department has been to introduce Working Plans for their forests, based on European systems of management. The system most usually adopted in India, especially for working the valuable teak and sal forests is the Selection System, in other words maintaining an equal distribution of all age classes throughout the forest. In a few cases such as in deciduous and other coniferous forests and also in a few instances in sal forests the Uniform Method or a system by which trees of more or less uniform age are grouped together has been applied, and this method of more intensive

management may come into more general use in the future, as a greater number of trained officers become available. In many cases, owing to the destruction of the forests in the past, it has only been possible to prescribe improvement felling though in time a more regular system of working will be introduced. The forests which are destined to supply small building timber and fuel to the local population are generally worked by either the Coppice with Standard or Pure Coppice methods, according to the state and composition of the forest while certain areas have been put aside for the formation of Fuel and Podder Reserves or as grazing areas.

Forest Surveys

The preparations of maps for the State Forests is undertaken by the Great Trigonometrical Survey Department. The area for which detailed surveys have been prepared was roughly 90,902 square miles in 1911-12 to which figures yearly additions are being made. As soon as possible after the compilation of detailed maps, Working Plans are prepared for the forest and up to 1913-14 about 30,000 square miles of Forests have been dealt with.

Method of Extraction.

Once the forests have been organized and plans of working prepared by an officer put on special duty for the purpose it remains for the executive officers to arrange for the exploitation of the trees, according to the provisions of the sanctioned plans. This work is carried out in various ways in different localities. Sometimes it is done experimentally as for instance in certain divisions on the West Coast and also in three or four of the western Pegu Yoma divisions in Burma. This system which had to be adopted by the Department when work was first commenced and contractors could not be obtained, has now generally been replaced by a system of giving leases to work the forests or by selling the annual coupes standing to contractors. In the case of the valuable teak forests of Burma the system of granting leases for a period of from 10 to 20 years has generally been adopted and has been found to work satisfactorily the trees for felling being marked by the Forest Department. In other provinces this system has been adopted on a more restricted scale and in India proper the custom of buying annual sales and selling the trees standing has been found more convenient and profitable. The right to collect Minor Produce is generally put up for auction, which gives the highest bidder the right to collect the produce from the forest for a given period generally one year. In order to meet the requirements of the local population a system of issuing permits is in force, the permit being issued free to right or privilege holders and on payment of a low fee to other persons. This enables agriculturists to obtain their requirements as to fuel, building timber and grass etc without delay and without having to pay enhanced rates to a middleman. The right to grazing is dealt with in the same way.

Important Timbers.

The forests of British India contain a vast number of trees and woody plants, in fact a far greater number than is generally realised

by the public. For instance the number of tree species is about 2,600, while the number of woody shrubs and climbers is not far short of that total. Of all Indian species of timber teak stands first, both in quality and as to the amount annually exported from the State forests. Sal comes next in importance and is obtained in the greatest quantities from the United Provinces and Nepal, while a very considerable amount is also available from Bengal, the Central Provinces Assam and the Feudatory States of Orissa. Of other species of nearly equal importance is deodar the timber of which is extensively used in construction and as railway sleepers sandal wood also and blackwood, the last two timbers being highly prized for building purposes and furniture making the sandal-wood of the Sundaibans and Bassein used in boat and carriage building Andaman and Burman Padauk used for the construction of gun carriages furniture and railway carriages the Pinakado of Burma used in building and one of the first deeper woods in the world the Red Sanders of Madras, babul, the In or eng wood of Burma all used for building and for a variety of other purposes and Khar from which Cutch is obtained. A great variety of other useful timbers could be mentioned of nearly equal importance to the above which go to supply the requirements of the enormous population of the Indian Empire.

Minor Forest Products

Turning now to Minor Forest Products, the most important come under the main heads fibre and fibres, grasses distillation products oil seeds, tan and dyes gums and resins rubber drugs and spices edible products, bamboos canes and animal and miscellaneous product. The number is very large while some of them are of considerable economic importance so much so that they realised over 107 lakhs of rupees in 1913-14. It is not possible to do more than to mention one or two of the most important of these commodities as for instance myrabolams for tanning. Cutch is of even greater importance being produced chiefly in Burma and the United Provinces though also prepared on a more limited scale elsewhere. Another equally well known product is lac produced chiefly in Sind and the Central Provinces which besides being used to calyx is annually exported in the form of shellac. Of other Minor Forest Products which deserve mention are rosha and lemon oils gum kino babul gum gurjan oil thitai damar and rubber, which are classed as exuded products. sabal grass for papermaking and munj grass for fibre and thatching mohwa seed yielding a valuable oil sandal and agar wood oil and the essential oils obtained from them sindal flower used for stuffing pillows kamella powder and lac dye used for dyeing podophyllum resin casela bark cardamoms, pepper and strychnine, come under the head of drugs and spices and a variety of other products often of considerable local value.

From what has been said above it will be seen that the Minor Products obtained from the Indian forests play by no means a small part in the economy and commerce of the country.

Commercial Development.—In recent years there has been a noticeable increase in the demand for forest products and several industries dependent on their supply have been or are about to be started. One of the most important of these is the utilization of bamboo, savannah grasses and firewood for the manufacture of paper pulp and to assist the development of this industry a special expert has been employed. With the assistance of the TTAGHUR Paper Mills Company Limited trials in the manufacture of bamboo pulp have been carried out successfully on a commercial scale and concessions for the extraction of bamboo have been granted to two firms in Burma and Bengal. In the Punjab a concession for the extraction of spruce and silver fir from the Kulu forest for the manufacture of wood pulp has been granted. Matters are less advanced as regards the grass pulp industry.

The extraction of **tanning materials** has received attention for some time past particularly in the matter of obtaining a satisfactory extract from the bark of mangroves. The services of a Tanning Expert have been obtained.

During recent years much has been done to stimulate the local manufacture of **matches** tests with numerous Indian woods have been carried out and a report regarding their suitability and the prospects of this industry has been issued. Several match factories on

modern lines have been established, and if a sufficient supply of match woods of good quality can be assured, there is no reason why the industry should not grow rapidly. The **tea box industry** has received special attention in Assam, where it absorbs a considerable portion of the output of the forests, and has steadily grown especially in the Assam Valley. Large quantities of **sleepers** have always been obtained by the Indian railways from the forests in this country but as the supply of first class sleeper woods such as *sal* and *deodar* is limited experiments in the antiseptic treatment of less durable timbers have been in progress for some years past.

Another important forest industry in which under departmental management marked progress has been made is the manufacture of **rosin and turpentine** from crude resin obtained by tapping the trees in the Himalayan forests. In the Punjab and the United Provinces new distilleries have been erected and in 1913-14 these turned out 27,429 mannds of rosin and 58,803 gallons of turpentine compared with 6,544 mannds of rosin and 14,004 gallons of turpentine ten years earlier. The Indian demand for these products which are largely used in the manufacture of paper, paints and varnishes is considerable and the local output has already affected imports from other countries.

The statement below relating to **Exports of Forest Products** is taken from the Annual Report of Statistics relating to Forest Administration in British India for 1913-14 recently issued —

Articles of Forest Product	Quantity in Tons of 20 cwt in the case of teak and other timbers cubic feet		Valuation at Port of shipment in 1913-14	
	Average of 5 years 1909-09 to 1912-13	In 1913-14	Total	Per Ton
			R	R
Caoutchouc raw	(a)	1,161	746,298	676
Latex { Button	1,83	1,991	13,07,059	1,196
Shell	14,263	18,768	1,60,78,134	1,231
Stick, seed and other kinds	2,004	2,097	1,72,774	85
Quinch and Gambier	3,444	2,341	9,82,436	317
Myrabolams	72,243	61,820	56,94,385	92
Gardamums	142	167	49,919	4,401
Sandal, Ebony and other ornamental woods	(a)	(b)	19,48,537	
Teak	43,145	50,787	8,64,781	155
Other timbers	6,098	7,685	7,09,784	89
			Rs	
Total in 1913-14			4,54,25,118	
1912-13			4,07,80,613	
1911-12			8,96,86,492	
1910-11			4,26,71,543	
1909-10			(b) 4,27,96,717	

(a) Quantity (whether by weight or measurement) not recorded.

(b) Corrected figure includes "other timbers" previously excluded.

AREA of FOREST LANDS, OUTPUT of PRODUCT and REVENUE and EXPENDITURE of FOREST DEPARTMENT

Province	Area Province	Area of Lands under the control of the Forest Department				Proportion of Col 6 to Col 2	Output of Produce		Revenue	Expendi- ture	Surplus
		Reserved Forests	Protec- ted Forests	Un- classified State Forests &c	Total		Timber and Fuel	Minor Produce			
						Sq miles			Sq miles	Sq miles	Per cent
Bengal	78 870	4 871	1 711	4 030	10 012	23 880 539	20 364	100 707	44 067	62 654	
United Provinces	106 773	4 117	301	2 916	4 178	15 322 582	51 310	230 364	103 618	127 616	
Punjab	96 050	2 506	5 200	1 811	8 718	21 026 713	166 724	82 002	63 278	29 324	
Burma	169 867	27 023	1 056	106 192	138 615	65 841 242	55 838	728 160	275 808	452 254	
Bihar and Orissa	56 980	1 723		1 779	8 7	17 881 012	16 183	59 284	25 080	4 204	
Assam	48 015	4 381		18 2 30	22 871	14 241 081	49 729	76 139	53 977	22 212	
Central Provinces and Berar	99 876	20 572		20 572	20 6	36 419 640	189 896	211 154	138 782	81 672	
Coorg	1 582	520		520	32 0	500 512	1 870	18 777	10 770	8 007	
North West Frontier Province	12 243	278		278	1 8	8 658 230	2 774	15 812	8 145	7 667	
Ajmer Merwara	2 767	142		142	5 1	1 019 965	1 768	2 440	1 081	469	
Baluchistan	54 226	313		472	786	240 279	2 007	1 744	1 903	—558	
Andaman	3 143	150		2 015	2 71	2 009 6 9	265	29 995	17 008	12 986	
Madras	142 294	18 641		8 7	16 406	25 877 199	142 100	274 165	210 082	64 133	
Bombay	123 301	11 967		490	12 460	60 444 347	98 403	542 535	178 497	153 988	
Total 1912 :	1 024 486	90 807	8 492	133 564	238 9 3	290 718 866	719 878	2 147 821	1 147 187	1 000 134	
1911-12	1 016 789	90 146	8 406	132 316	242 960	287 164 453	708 932	1 897 167	1 129 771	807 386	
1910-11	1 010 283	86 787	8 307	130 544	241 278	290 668 178	69 788	1 827 060	1 010 503	810 702	
1909-10	987 990	86 474	8 314	140 263	240 351	291 182 680	64 085	1 785 008	994 710	740 343	
1908-9	986 144	84 661	8 835	138 478	241 774	232 036 863	536 669	1 607 120	981 786	715 384	
1907-8	985 938	94 070	8 867	134 897	241 809	234 982 121	551 144	1 724 193	997 529	766 670	
1906-7	987 746	94 037	9 468	136 633	240 138	224 146 948	504 419	1 766 089	937 587	828 512	
1905-6	970 077	92 406	10 018	131 137	238 451	244 314 840	461 300	1 718 306	950 568	827 788	
1904-5	927 182	9 450	1 918	24 1	232 041	251 568 276	897 795	1 601 907	894 524	737 473	
1903-4	967 894	91 667	9 866	131 569	232 701	232 916 345	298 607	1 461 116	811 158	669 693	
Totals											

Totals

RUBBER CULTIVATION

The most important rubber yielding tree found growing naturally in the Forests of India is *Neves elastica* a very large tree of the outer Himalayas from Nepal eastwards in Assam, the Khasi Hills and Upper Burma. It has also been cultivated in Assam in the Charduar plantation in the Terpur Sub-Division as also in the Kulai plantation of the Gauhati Sub-Division in the Kamrup Division. There are also a number of other rubber yielding trees found in the Indian and Burman forests from which rubber can be collected on terms quoted by Government. Attempts have been made to cultivate Para, Ceara and Castilloa in various parts of India and Burma. In India proper the chief attempts were made on the west coast, about 180 acres being planted from 1906 onward at Gersoppa. Similar attempts have been made in Madras but at present Para rubber is being grown as a commercial product rather in Burma than the rest of India.

The production of rubber in India is confined to Assam, Burma, and the Madras Presidency—

	Acrea	No of trees
Assam	4,651	137,480
Madras	12,022	1,636,476
Burma	29,044	4,911,899
Total	46,247	6,685,305

The yield of Assam plantations is relatively small and the number of trees to the acre is much less than in Madras and Burma. The

outturn of Madras in 1913 was more than double that of Burma, where most of the trees being less than six years old are not yet productive. All planting is stump planting about 9 to 12 months old. The trees can be tapped in four years from the date of planting. The average yield in Burma from 4 to 6 years old trees is 1½ to 3 lbs. per tree per year. The capital invested is from £22 to £25 per acre. The average cost of production is about 1s 6d. to 1s 10½d. per lb.

There has been a steady development in the exports of rubber from India. The exports increased from 23,264 cwts. valued at Rs. 79 lakhs in 1911-12 to the record figures of 42,825 cwts. valued at Rs. 83½ lakhs, in the year 1914-15. India, including Burma and the Mergui, has increased its plantations from 46,000 acres in 1913—the year for which statistics are given above—to 65,000 acres in 1914.

The Commissioner of Settlements and Land Records, Burma, gives the following rough estimate of future production—

1915	1,500,000 lbs.
1916	1,800,000
1917	3,000,000

BIBLIOGRAPHY—For fuller details see "Dictionary of the Economic Products of India" and the abridged edition of the same published in 1905 under the title "The Commercial products of India" by Sir George Watts and the "Commercial Guide to the Forest Economic Products of India" by R. S. Pearson, published by the Government Press Calcutta 1912.

MATCH FACTORIES

The total imports of matches into British India in 1914-15 amounted to nearly 15½ millions gross boxes valued at Rs. 113 lakhs. The share of Japan in the import trade was 61 per cent. and that of Sweden 24 per cent. It is true that there was a steady drop in the imports of matches from Japan during the first four months of the war but this was followed by a very rapid rise in December 1914 onwards. In normal years matches are also imported from Austria, Hungary, Germany and Belgium. In the opinion of the Forest experts at Dehra Dun there is an abundance of raw material in this country for match manufacture.

Indian timbers for matches.—In an article on the Indian match industry which appeared in the *Indian Agriculturalist* the woods of the following species are said to be employed in Burma for match splints: *Bombax tigris* B. *melastomaceae* (simul), *Anthocephalus cadamba* (kadamba), *Sarcocaphalus cordatus* *Spondias mombin* (amra), and *Empelhardia spicata* (palash). These woods are not the best for the purpose, but are those most easily procurable. There are other kinds of white wood, such as poplar, pine, willow and alder in abundance

quantities but they are difficult to extract and transport and are therefore costly.

The attempts to manufacture matches in India have not hitherto been attended with great success but recently two well-equipped factories have been started in Burma which give promise of good results. One of these is in Rangoon and is owned by Chinese; the other is at Mandalay and is under European management. Further investigations are said to be necessary in order to settle the question as to the most suitable woods to employ and when these have been brought to a satisfactory conclusion it is thought that Burma will be able to produce matches of first-class quality. It may be added that in 1912, the latest year for which complete statistics are available, there were six match factories in India.

The Law in India prohibiting the importation of the old sulphur matches as from July 1st 1913 has not seriously affected the position of the Swedish manufacturers, as they were able to supply another "strike-anywhere" match to take the place of the kind then prohibited but as the new kind is dearer to manufacture the prices have gone up and are likely to rise still further.

PAPER MAKING

This industry is not making the headway in India that had been anticipated there being only nine mills at work with a nominal capital of about Rs 54 lakhs which in 1913 produced over 60½ million lbs of coarse paper valued at Rs 80 lakhs.

There are five large paper mills in the country working on up-to-date Western lines, viz at Titagarh, Kankinara and Raniganj in Bengal the Upper India Coopers Mills at Lucknow and the Reay Mill at Poona. There are also two smaller mills at Bombay and Surat which make only country paper and there are one or two other mills which recently were not working. The five large mills have a large Government connection, as the greater part of Government orders for paper is placed in India. Apart however from Government orders the Indian paper mills cannot be said to have made headway against the competition of imported paper.

The existence of the local industry depends chiefly on the supply of Sabal grass which on account of unfavourable seasons sometimes yields short crops. It is of great importance therefore to look for materials affording a constant outturn, and various reports have been published on the available paper making materials. Considerable attention has been devoted to **Bamboo** since 1875 when it was found that this plant—of which there are four chief varieties in India—yielded a fibrous paper stock which made a quality of paper superior to esparto grass and at a considerably less cost. It was at that time estimated that one acre of bamboo would yield 10 tons of dried stems equivalent to 6 tons of merchantable cellulose. In 1905 Mr R. W. Sindall was invited by Government to visit Burma with a view of enquiring into the possibility of manufacturing paper pulp. His report on the subject appeared in March 1906. He made numerous experiments with bamboo and woods of Burma and laid down lines along which further enquiry should be made. Subsequently Mr W. Raitt a pulp expert was engaged at the Forest Research Institute in conducting tests on the treatment of bamboos by the soda and sulphate processes the treatment of bamboo before boiling, with remarks on the utilization of nodes and internodes. His results were embodied in the 'Report on the Investigation of Bamboo

for Production of Paper pulp' published in 1911. Mr R. S. Pearson of the Forest Service Dehra Dun, as the outcome of enquiries made throughout India published in 1912 a note on the Utilization of Bamboo for the Manufacture of Paper pulp. The yield per acre from bamboo is larger than that of grasses usually used for paper. The cost of working into pulp has been estimated to yield a product cheaper than imported unbleached spruce sulphite and unbleached sabal grass pulp. In 1915 Mr Dhruva Sumanas published a pamphlet *Dendrocalamus Strictus* Bamboo of the Dangs as the result of investigations carried on in Banada State.

The leading Indian paper grass for the last thirty years has been the bhal, babar or sabal grass of Northern India. It is a perennial grass plentiful in drier tracts from Chota Nagpur and Rajmahal to Nepal and Garhwal. The Calcutta mills draw their supplies from Sahibganj, Chota Nagpur and the Nepal Terai. The quantity annually exported from Sahibganj is between three to four lakhs of maunds. The cutting in these districts is said to commence in October when the plants are six or seven feet high. Sabal grass yields from 36 to 45 per cent of bleached cellulose.

Imported materials—Paper making materials mostly woodpulp are imported to a great extent from the United Kingdom, Austria-Hungary, Sweden and Germany. Of chemicals the bleaching material caustic soda and sulphur or sulphuric acid are imported chiefly from the United Kingdom. Rosin is already being manufactured by the Forest Department in the United Provinces from crude resin obtained by tapping *pine trees in the Himalayan forests* and the product is taken by the paper mills in India.

In India the effects of the war were immediately felt in the rise in the price of wood pulp which is used in considerable quantities by mills. The high cost of imported woodpulp and the increasing price paid for raw materials such as bhal grass, the cost of transporting the raw material to the mills and the temporarily high cost of chemicals are the chief obstacles to the development of the local industry. The position may be greatly improved when the new sources of raw materials are exploited and the products made readily available.

Mines and Minerals.

The feature which stands out most prominently in a survey of the mineral industries of India is the fact that until recent years little has been done to develop those minerals which are essential to modern metallurgical and chemical industries, while most striking progress has been made in opening out deposits from which products are obtained suitable for export, or for consumption in the country by what may conveniently be called direct processes. In this respect India of to-day stands in contrast to the India of a century ago. The European chemist, armed with cheap supplies of sulphuric acid and alkali and aided by low sea freights and increased facilities for internal distribution by the spreading network of railways has been enabled to stamp out in all but remote localities the once flourishing native manufactures of alum, the various alkaline compounds, blue vitriol, copperas, copper, lead, steel and iron and seriously to curtail the export trade in nitre and borax. The reaction against that invasion is of recent date. The high quality of the nitrate made from the early anticipation of the processes now employed in Europe for the manufacture of high-class steels and the artistic products in copper and brass gave the country a prominent position in the ancient metallurgical world while as a chief source of nitre India held a position of peculiar political importance until, less than forty years ago, the chemical manufacturer of Europe found among his by-products, cheaper and more effective compounds for the manufacture of explosives.

With the spread of railways the development of manufactures connected with jute, cotton and paper and the gradually extended use of

electricity the demand for metallurgical and chemical products in India has steadily grown. Before long the stage must be reached at which the variety and quantity of products required, but now imported, will satisfy the conditions necessary for the local production of those which can be economically manufactured only for the supply of groups of industries.

Value of Output.—The total value of the chief minerals for which returns of production are available for the years 1913 and 1914 was as follows—

	1913	1914
	£	£
Coal	8 794 137	8 907 380
Gold	2 291 91	2 318 865
Petroleum	1 064 568	958 565
Manganese-ore	1 211 034	877 264
Salt	4 2 045	483 289
Mica	102 584	237 810
Saltpetre	200 903	272 462
Lead-ore and Lead	89 503	202 820
Tungsten-ore	1, 763	178 543

Coal

Most of the coal raised in India comes from the Bengal—Gondwana coal fields. Outside Bengal the most important mines are those at Singareni in Hyderabad, but there are a number of smaller mines which have been worked at one time or another.

There was a small rise of 1½ per cent in quantity and about 2 per cent in value of the Indian output of coal in 1914 which has now reached nearly 16½ million tons with a value of 239 7380. The pit's mouth value varied from Rs 2 in Central India to Rs 9.9 in Baluchistan the figures for the chief coalfields, however being Rs 3.3 4 for the fields of Bihar and Orissa and Rs 2.13 10 for those of Bengal. There has been a very marked rise in recent years in the case of Assam coal which has risen from under Rs 2 in 1912 to Rs 7 in 1914. The pit's mouth value has risen both in the Jherria and Raniganj fields but has fallen in Central India and in the Nizam's Territory and has remained steady in the Punjab.

	Output Tons	Declared value per ton.	Exports Tons	Imports. Tons
		Rs & p		
1904-05	8 216 708	7 13 2	594 832	252,393
1905-06	8 417 739	7 13 3	836 149	179 685
1906-07	9 783 240	7 15 11	933 850	257 908
1907-08	11 147 339	8 1 7	72, 681	306 848
1908-09	12,769 625	8 13 5	571 582	455 806
1909-10	11 870 064	8 13 7	758 823	428 335
1910-11	12,047 418	8 10 6	889 601	334 181
1911-12	12 715 684	8 13 0	873,987	297,912
1912-13	14 708 832	10 0 4	881,230	658,694
1913-14	16,208 009	9 8 11	722,641	559 190
1914-15	16,464 000	8 14 2	594 000	392,000

Provincial production of coal during the years 1912 and 1913

Province	1912.	1913
	Tons.	Tons.
Assam	297 160	270 882
Baluchistan	54 388	52 089
Bengal	4 306 129	4 649 925
Bihar and Orissa	9 126 350	10 227 651
Central India	149 921	148 978
Central Provinces	233 996	230 051
Hyderabad	481 652	552 138
N W Frontier Province	50	90
Punjab	38 409	51 040
Rajputana (Bikaner)	18 251	18 781
Total	14 706 339	15 208 009

The growth of the coal mining industry may be roughly gauged from the following table showing the number of Joint Stock Coal Companies and their total paid up capital.

	No	Rs
1906-07	66	200 lakhs
1907-08	115	432
1908-09	125	458
1909-10	128	731
1910-11	129	721
1911-12	128	722
1912-13	130	716
1913-14	140	726
1914-15	145	744

There were 129 Joint Stock Companies at work in Bengal and 4 in Bihar and Orissa on

the 31st March 1914. These Companies accounted for 78 per cent of the total output of the Bengal and Bihar and Orissa coal fields in 1913. Outside Bengal and Bihar and Orissa there were only nine Joint Stock Companies at work during the year. Only seven of coal Companies at work on the 31st March 1914 have a paid up capital (exclusive of debentures) of Rs 15 00 000 (£100 000) or more. There are twenty others each of which has a paid up capital of Rs 7 50 000 (£50 000) but less than Rs 15 00 000.

Railways and Coal.—The latest Administration Report on Railways says that the railways in 1914 accounted for about one third (5 500 000 tons) of the coal mined in India in that year. Owing to the falling off in traffic in consequence of the war the coal under contract for several railways was found to be in excess of requirements and arrangements were made for the delivery of a portion of this coal to be postponed until the year 1916-17. The total coal affected by this arrangement was about 450 000 tons. Coal prices fell steadily during the year particularly for inferior qualities owing to the accumulation of stocks at the collieries. This fall in value continued up to the end of the period under review when large quantities of fair second class coals could be obtained at about Rs 2 per ton at pit's mouth a rate which is not much over the cost of raising the coal. At the end of 1914 an offer was made by the Coal Department to the coal trade through the Indian Mining Association to inspect and pass a cargo of public export coal. It was hoped that this offer would stimulate the export coal trade but the rise in a fortnight prevented much business being done.

IRON ORE

Bengal and Bihar and Orissa are the only provinces in India in which iron ore is mined for smelting by European methods. Iron smelting, however, was at one time a widespread industry in India and there is hardly a district away from the great alluvial tracts of the Indus Ganges and Brahmaputra in which slag heaps are not found. The primitive iron smelter does no difficulty in obtaining sufficient supplies of ore from deposits that no European ironmaster would regard as worth his serious consideration. Early attempts to introduce European processes for the manufacture of pig iron and steel were recorded in 1830 in the South Arcot District since that date various other attempts have been made but none proved a success before that now in operation near Barakar in Bengal. The site of the **Barakar Iron Works** was originally chosen on account of the proximity of both coal and ore supplies. The outcrop of iron stone shales between the coal bearing Barakar and Raniganj stages stretches east and west from the works and for many years the clay ironstone nodules obtainable from this formation formed the only supply of ore used in the blast furnaces. Recently magnetite and hematite have been obtained from the Manbhum and Singhbhum districts and the production from the last named district has largely replaced the supplies of ore hitherto obtained near the iron works. The Bengal Iron and Steel Company Limited have now given up the use of

ores obtained from the neighbourhood of Barakar and Raniganj and are now obtaining their ores exclusively from the Kolhan Estate (Singhbhum). The deposits are known as **Pansara Hill** and **Buda Hill** situated about 12 miles and 8 miles south-east of Manbhum Station Bengal Nagpur Railway. The total quantity of ore in these two deposits has been estimated to be about 10 millions tons. Of the **Tata Iron and Steel Company** at each of an account is given elsewhere in this volume. Although the Tata Iron and Steel Company possesses slightly richer and purer ore bodies in the Raipur district supplies of ore at present drawn from the deposits in Mayurbhanj. The ore deposits have all been found to take the form of roughly lenticular leads or bodies of hematite with small proportions of magnetite in close association with granite on the one hand and greenish rocks on the other. These latter have been noted in the field as charnockites the term being employed rather loosely no doubt but probably in the main correctly to cover types of pretty widely varying acidity. In still more intimate association with the ores than either of the foregoing were found masses of dense quartz rocks frequently banded, and banded quartz-iron-ore rocks. These last are of the types so commonly associated with Indian iron-ores but are here not so prominent as is usually the case.

MANGANESE ORE.

This industry commenced some twenty years ago by quarrying the deposits of the Visagapatnam district, and from an output of 674 tons in 1882, the production rose rapidly to 92,908 tons in 1900 when the richer deposits in the Central Provinces were also attacked, and are now yielding a larger quantity of ore than the Visagapatnam mines. India now alternates with Russia as the first manganese producing country in the world. The most important deposits occur in the Central Provinces, Madras, Central India, and Mysore—the largest supply coming from the Central Provinces. The uses to which the ore is put are somewhat varied. The peroxide is used by glass manufacturers to destroy the green colour in glass making and it is also used in porcelain painting and glazing for the brown colour which it yields. The ore is now used in the manufacture of ferromanganese for use in steel manufacture. Since 1904, when the

total output was 150,190 tons the progress of the industry has been remarkable owing to the high prices prevailing. In 1905 production reached 247,427 tons. The following year it was more than doubled (571,495 tons) and in 1907 the figures again rose to 902,291 tons. In 1909 on account of the fall in prices the output contracted to 642,875 tons but it almost regained its former position in 1910 when the production rose to 800,907 tons. In 1911 it fell to 670,290 tons. In 1914 the output was 682,898 tons valued at Rs. 7,264. The ore raised in the Central Provinces is of a very high grade running from 50 to 54 per cent. of the metal, and in some places of its high quality is able to pay the heavy tax of freight over 500 miles to Europe and America for the whole of the ore is exported to be used principally in steel manufacture in the United Kingdom, Germany and the United States.

The Exports of Manganese ore from India during the years 1913-14 and 1914-15 are shown in the following table—

To	1913-14		1914-15	
	Tons	Rs.	Tons	Rs.
United Kingdom	258,776	4,17,102	2,7,281	9,72,1
Belgium	78,821	31,84,620	60,048	10,85,932
France	104,847	10,74,72	46,326	8,43,480
United States	106,427	1,01,216	73,503	11,02,545
Other Countries	61,278	1,14,800	27,437	5,28,175
TOTAL	718,049	1,11,144	440,400	75,30,283

The fall in prices in the latter part of 1907 produced by 1909 an almost complete cessation of mining for lower grades of ore at mines far removed from railways. Owing to an excess of production over exports the stocks on the mines at the end of 1908 stood at the high total of nearly 300,000 tons. The rise in the price of ore during 1910 resulted in a considerable increase in the total production namely from

642,875 tons in 1909 to 800,907 tons in 1910 but with a fall in price in 1911 the output also fell. In 1912 there was a rise of over 36 per cent. in the value of the output. At the same time there was a slight fall in the amount produced. The rise in the value of the total output was therefore due to improved prices and not to increased output.

GOLD

The greater part of the total output of gold in India is derived from the Kolar gold field in Mysore. During the last decade the production of this mine reached its highest point in 1905 when 616,768 ounces were raised. In 1906 the quantity won was 585,298 ounces and this figure fell to 538,085 ounces in 1907. The figures for the latter years reveal a small improvement. The Nisam's mine at Hutti in Hyderabad comes next but at a respectable distance to the Kolar gold field. This mine was opened in 1903. The only other mines from which gold was raised were those in the Dharwar district of Bombay and the Anantapur district of Madras. The Dharwar mines gave an output of 2,988 ounces in 1911 but work there ceased in 1912. The Anantapur mines gave their first output of gold during the year 1910 the amount being 2,832 ounces, valued at Rs. 1,81,890. Gold mining was carried on in the North Arcot district of Madras from 1893 till 1900 the highest yield (2,854 ounces) being obtained in the year 1898. The Kysnapat mine in Upper Burma was worked until 1903 when the pay chute was lost and the mine closed down. In 1902 dredging operations were started on the Irrawaddy river near Myittha.

and 216 ounces of gold were obtained in 1904 the amount steadily increased from year to year and reached 6,445 ounces in 1909 but fell to 5,972 ounces in 1910 increasing again to 6,390 ounces in 1911 and being in 1915 only 5,893 ounces. The gold cruse which was prevalent in Rangoon a few years ago, has disappeared as suddenly as it sprang up. The Burma Gold Dredging Company holds a right to dredge for gold in the bed of the Irrawaddy river and notwithstanding the obstacles encountered from time to time in the shape of floods, etc. the company has so far been fairly successful in its operations. The small quantity of gold produced in the Punjab, the Central Provinces and the United Provinces is obtained by washing. Gold washing is carried on in a great many districts in India, but there is no complete record of the amount obtained in this way. The average earnings of the workers are very small, and the gold thus won is used locally for making jewellery. The latest statistics available for the whole of India are for 1914 when the gold produced in Mysore and elsewhere in India amounted to 967,886 oz. valued at £2,338,855.

PETROLEUM.

Petroleum is found in India in two distinct areas—one on the east which includes Assam, Burma, and the islands off the Arakan coast. This belt extends to the productive oil fields of Sumatra, Java and Borneo. The other area is on the west and includes the Punjab and Baluchistan the same belt of oil bearing rocks being continued beyond the borders of British India to Persia. Of these two the eastern area is by far the most important and the most successful oil fields are found in the Irrawaddy valley. Yenangyaung is the oldest and most developed of these fields. Native wells have been at work here for over 100 years, and in 1886 prior to the annexation of Upper Burma the output is estimated to have averaged over 2 million gallons a year. Drilling was begun in 1887. The Yenangyat field yielded a very small supply of petroleum before 1891 in which year drilling was started by the Burma Oil Company. Since now holds the second place among the oil fields of India. Petroleum was struck at the end of 1901 and in 1903, 5 million gallons were obtained. In 1907 and 1908 the production of this field was 43 million

gallons, and after a fall to 31½ million gallons in 1910 it rose to 54½ million gallons in 1912. Several of the islands off the Arakan coast are known to contain oil deposits, but their value is uncertain. About 20 000 gallons were obtained from the eastern Barong Island near Akyab and about 37 000 gallons from Ramri Island in the Kyaukpadaung district during 1911. Oil was struck at Minbu in 1910 the production for that year being 18 328 gallons which increased to nearly 4 million gallons in 1912. The existence of oil in Assam has been known for many years and an oil spring was struck near Makum in 1867. Nothing more however was done until 1885 and from that year up till 1902 progress was slow. Since that year the annual production has been between 2½ and 4 million gallons.

On the west, oil springs have been known for many years to exist in the Rawalpindi and other districts in the Punjab. In Baluchistan geological conditions are adverse and though some small oil springs have been discovered attempts to develop them have not hitherto been successful.

Quantity and value of Petroleum produced in India during 1911 and 1914

	1911		1914	
	Quantity	Value	Quantity	Value
	(Gallons)	£	(Gallons)	£
Burma—				
Akyab	14 027	— 0	1,048	240
Kyaukpadaung	24 254	— 21	2,087	77
Magway (Yenangyaung)	200 350 606	771 862	1 494 710	671 027
Myingyan (Singu)	158 710	211 529	74 409 314	244 668
Pakokku (Yenangyat)	460 179	— 0 731	4 18 064	16 729
Minbu	1 08 311	1 132	1 681 180	1 013
Thayetmyo	10 240	108	22 836	— 0
India—				
Digboi (Lakhimpur)	4 684 128	1 406	4 684 04	1 406
Punjab—				
Mianwali	12 0	11	1 10	13
Total	2 755 525	1 034 089	5 232 710	908 506

There was a considerable increase in the import of kerosine into India during 1914 the total being nearly 84 million gallons as against only 66 million gallons in 1911.

Amber, Graphite and Mica.—Amber is found in very small quantities in Burma, the output for 1912 being 27 cwt. valued at £170. Graphite is found in small quantities in various places but no progress has been made in mining except in Travancore, and there owing to the difficulties of working the mine has been shut down. The output from it was 20 425 in 1911. India has for many years been the leading producer of mica, turning out more than half of the world's supply. In 1914, owing to the war the output was only 88,189 cwts. compared with 48 660 cwts in 1913. A large proportion of the demand for this mineral has come from Germany for use in its large electrical in-

dustries.

Tin, Copper, Silver, Lead and Antimony.—The only persistent attempt to mine tin is in Burma. The output was for sometime insignificant but rose in 1918 to 116 tons valued at £48 000 which fell to £38 000 in 1914. Copper is found in Southern India in Rajputana, and at various places along the outer Himalayas, but the ore is smelted for the metal alone, no attempt being made to utilize the by products. An attempt is being made to work lodes near Pangang, in the Northern Shan States, for the production of silver and lead, and in Southern Burma for antimony.

Gem Stones.—The only precious and semi-precious stones at present mined in India are the diamond, ruby sapphire spinel, tourmaline, garnet, rock-crystal, agate, cornelian, jasper and amber. Amber has already been referred to, of the rest only the ruby sapphire and jasper attain any considerable value in production and the export of the latter has declined owing to the disturbances in China, which is the chief purchaser of Burmese jasper. The output of diamonds is comparatively unimportant. The ruby mining industry of Burma has lately undergone a favourable change. In 1914 the output of gems was 304,042 carats.

Tungsten.—A marked feature of the development of the mineral industries of India during recent years is the rapid rise of the wolfram industry in the districts of Mergui and Tavoy in Lower Burma. Although there was an output of 7 tons from Mergui in 1909 the industry dates practically from the following year. In 1910 the output of wolfram in Burma rose from 1,688 tons valued at £127,782 in 1913 to 2,326 tons valued at £178,543 in 1914-15. Had it not been for the location of the arrangements for disposing of ore during the latter part of last year the output would probably have been considerably higher. The industry however subsequently recovered itself and owing to the demand for wolfram for the manufacture of tungsten steel, special regulations have been made for the mining of it under the Deference of India Act.

According to the Director of the Geological Survey the total production of the world is about 3,000 tons per annum of concentrates ranging from 80 to 70 per cent of tungstic trioxide. In Burma production is on a small scale. In Siam the mining of wolfram is a recent development. Wolfram is also produced in Australia and in the Malay Peninsula. Formerly Germany used to take over 50 per cent of the total exports from India, but this is one of the minerals of which the export was restricted owing to the war. Thus shipments for Germany were diverted in 1914-15 to the United Kingdom which took 1,118 tons or 58 per cent of total exports of 1,916 tons valued at Rs. 264 lakhs.

Radio-active Minerals.—The General Report of the Director of the Geological Survey of India for 1913 includes a brief report by E. C. Burton on an occurrence of pitchblende at mica mines near Singar Ganga district, Bengal. The pitchblende occurs as rounded nodules in a pegmatite that is intrusive in mica schists. Other minerals occurring in the pegmatite are mica, tripelite, ilmenite, tourmaline and uranium ochre. Whiteish columbite, zircon, and torbernite have also been recorded. Of these minerals tripelite is stated to be the commonest. It is associated so persistently with the pitchblende and uranium ochre that its presence is taken as an indication of the presence of these minerals. Many of the pitchblende nodules occur in a matrix of tripelite, some occur in a feldspathic matrix. One nodule of pitchblende weighing 86 lb. has been obtained. The pegmatite has been mined for many years for mica. As yet, not much pitchblende has been obtained, but one pit has yielded up to the present about 4 cwts. of the mineral.

Inspection of Mines.

During the year 1914 the average number of persons working in and about the mines regulated by the Indian Mines Act was 185,211 of whom 130,071 worked underground and 55,140 on the surface. One hundred and fifteen thousand and one hundred and seventy four were adult males, 64,174 were adult females and 6,858 were children under 13 years of age. This is an increase of 3,951 workers or 2.18 per cent.

Accidents.—During the year 1914, at mines regulated by the Indian Mines Act, 1901 there were 152 fatal accidents being an increase of 16 as compared with the number in 1913 and an increase of 2, as compared with the average number of last five years.

These accidents involved the loss of 191 lives. This is a decrease of 20 upon the number of deaths in 1913.

There was no single accident involving a large death toll as was unfortunately the case in 1913. In one case however 8 lives were lost owing to a fall of roof in a coal mine and in two cases 4 lives were lost, one by an explosion of gunpowder in a salt mine and the other by an interruption of water in a mica mine. In five cases 4 persons and in fifteen cases 2 persons were killed.

Of these 152 accidents the Chief Inspector of Mines regards (a) 77 as being due to misadventure, (b) 42 to the fault of the deceased, (c) 3 to the fault of fellow workmen, (d) 12 to the fault of subordinate official and (e) 16 to the fault of the management.

Very many of these accidents might have been prevented by the exercise of ordinary care and forethought on the part of both officials and men and the Chief Inspector of Mines is satisfied that only by closer supervision and stricter discipline can their number be diminished. Such accidents result from persons passing through fence into old workings to get easily worked coal from persons sitting in dangerous places or under roof coal at which they have just been working from persons being struck down by falling roof and sides as they travel to and from their working places and from disobedience to an official's orders in trivial matters.

The death-rate per thousand persons employed was 1.63 while that of the preceding five years was 1.17. At coal mines only these figures were 1.05 and 1.34, and at mines other than coal 0.97 and 0.69. At coal mines in England during the ten years ending with and including 1913 the death rate per thousand persons employed varied from 1.17 (lowest) to 1.63 (highest). The death rate per million of tons raised at coal mines only was 9.2, while that of the preceding five years was 11.07. At coal mines in England during the ten years ending with and including 1913 the death rate per million tons raised varied from 4.29 (lowest) to 8.37 (highest).

Chief Inspector of Mines in India, G. F. Adams, M. Inst. C. E.

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Industrial Arts.

"The Arts of India," wrote Sir George Birdwood in the first lines of his book on the industrial arts of India which has now become a classic, are the illustration of the religious life of the Hindus, as that life was already organized in full perfection under the code of Manu, B. C. 600-500. Whether that statement be accepted in its entirety or not, some knowledge of the religion of the Hindus is most essential to an understanding of their art. That subject is dealt with elsewhere in this book and so is the subject of caste of which a knowledge is equally important in this connection. But by way of preface to a brief outline of some of the more important art industries of the country it may be well to state what is the basis of practically the whole industrial system of India. The child learns his hereditary craft from his father or is apprenticed to a *metri*, or master craftsman who is often a relative of the pupil. There is no regular fee but a small present is often paid to the owner or foreman of the shop and in some trades a religious ceremony may take place at the time of apprenticeship. The child begins his work at a very early age at first he is expected to undertake the menial duties of the shop and is put to cleaning the tools later he begins to perform the simplest operations of the trade. There is little definite instruction but the boy gradually acquires skill by handling the tools and watching the workmen at their task. As soon as he has made a little progress the apprentice is granted a small wage which is gradually increased as he becomes more useful and when his training is finished he either goes out into the world or secures a place on the permanent roll of his master's shop. To the poor artisan the arrangement has this great advantage that at a very early age the child earns his livelihood and ceases to be a burden on his parents. In former days the system answered well enough for the rude village industries which satisfied the needs of the bulk of the population and it also succeeded in maintaining a class of workmen who dealt in metals and textile fabrics with such sense of form and colour that their work has challenged comparison with the most artistic products of the West. It has not however enabled the Indian artisans to keep abreast with modern industrial development. Imported articles have to a considerable extent supplanted the products of home industry the quality of Indian work has in many cases deteriorated and the workman has neither taken due advantage of the wide openings afforded to him by advancing civilisation and trade nor adhered rigidly to old methods and traditions. The efforts made to assist him have not as yet been attended with a great measure of success, but the possibilities of the Schools of Art and Technical Institutions are only beginning to be appreciated.

Wood-carving.

Indian wood-work which must come first in importance in the art products of the country shows great diversity and many points of interest and the wood-carvers of the country have gained a well-deserved reputation out-

side India. The more noteworthy crafts include carving as applied to architecture, furniture and cabinet work inlaying with other woods or metals, veneering, and lattice-work. The art and industrial schools of Calcutta, Madras, Bombay and Lahore have given much attention to developing these crafts on indigenous lines with the result that degeneration has to a large extent been prevented and a superior class of carpenters, dispersed over the country. On a smaller scale objects are carved in sandal wood with a minuteness and intricacy of elaboration only equalled by the results attained in ivory. As to style, there is a great variety of types throughout the country the two chief influences on the art conception being religion and the nature of the wood used. Mahomedan and Sikh work—for example is largely constructed on a geometric basis though in the modern Sikh work as in the Hindu—grotesque animal forms or mythological subjects are freely introduced. The woods chiefly used for ornamental work are teak *shisham* deodar sandal wood ebony walnut *ras nam* Madras red wood (sometimes called black wood) *dudhi* (white-wood) red cedar *sai babul* and others of less importance. Deep under-cutting and sculpture are possible with teak red wood, and walnut, whereas *shisham* and deodar can be used only for low relief work. In recent years a great demand for cheap and inferior carving—on tables and other articles alien to the Indian mind—has sprung up in Europe and America and has been met by the export of vast quantities of poor work for which the soft woods only are used while bone takes the place of ivory in inlaying. In these "abominations" writes Sir George Watt in the catalogue of the 1908 Exhibition at Delhi. It is thought sufficient proof of an Indian character to introduce some portion of a mosque or temple, and that being done all attention to such details as suitability of design or nature of ornamentation can be disregarded.

Metal Work.

The purely indigenous or village metal manufactures are perhaps, after those connected with wood the most important of all the art industries of India. Most of the household utensils are made of metal which thus to a large extent take the place of the porcelain and glass of Europe. Brass is most frequently employed by Hindus and copper by Mahomedans, the copper vessel being generally tinned for safety. Every large village has its copper and ironmiths and also its jeweller and in some instances these local industries attain considerable magnitude, as is the case with the manufacture of copper and brass vessels at *Srinagar*, Benares and other towns. The making of ornamental bowls, vases, trays and other European articles constitutes an important industry in many places and a variety of processes is of course employed such as enamelling, damascening, and colouring either with lac or paint. The provinces of India have each two or three centres noted for their copper or brass ware, and there are as many different art conceptions as centres. Some of these styles are well known all over the world, such as the Benares

style of punched brass, which is as a rule laid in design and execution and the engraved or repoussé work in polished brass that comes in large quantities from Jaipur. Better than either of these are the perforated and repoussé copper work of Lucknow the best products of Bombay Poona, and some of the southern India centres, and the gongs and idols made in Burma. Ordinary domestic utensils which are free from ornamentation so that they can be readily scoured, and the more elaborate implements used for religious ceremonials are among the most and beautiful interesting metal wares in India, but they vary in style and finish through out the country. Sir George Watt writes —

The copper or brass vessel of most general use by the Hindus is the *loti* a globular melon shaped vessel flattened from the top and having an elegantly reflexed rim by which it is carried suspended between the fingers and thumb. In shape this doubtless originated from the partially expanded flowers of the sacred lotus its name thus coming from the same root as the Latin *lotus* washed and the English *lotion* a wash. With the Mahomedans the *loti* (or *loti*) has been given a spout because the Quran ordains that a man shall perform his ablutions in running water hence the water when poured out of the *loti* is considered to be running water. It is carried by holding the rim of one side and it thus dangles instead of being (as with the Hindus) suspended from the middle of the hand. The shapes of the *loti* and *lotis* and their respective uses have given birth to two widely different forms of both domestic and decorative metal work characteristic of India. For example, the spout and the use of copper more especially when tinned, has originated a whole range of forms and designs not only quite unknown to the Hindus but next to impossible with the materials permitted by their religion. It is scarcely possible any longer to divide the gold and silver plate work of India into four or five well defined classes distinguished by the style of ornamentation as the workers in these metals have been quick to adopt a variety of European models. In Madras mythological medallions, in imitation of the encrusted style of Southern India art, still form the characteristic feature of much of the silver work. In Bombay two distinctive forms survive the Poona and Kutch of these the former is a deep form of repoussé, the silver usually being oxidized, the latter has a floral design of European origin in shallow repoussé. Rangoon work is generally known by the frosted surface of the silver and Moulema work by the silver being either polished or burnished. But in almost every case the design of one province is copied in another and the best forms of ornamentation such as the shawl pattern of Kashmir have fallen into disuse either because of the labour involved in their production or because the smiths have found by experience that it is just as easy to sell inferior work

Great varieties of form and style are to be seen in the arms and jewellery made in India. Sir George Birdwood in his "Industrial arts of India" says that the forms of Indian jewellery as well as of gold and silver plate, and the chasings and embossments decorating

them have come down in an unbroken tradition from the Ramayana and Mahabharata. The old types survive side by side with the copies of articles imported from the Rue de la Paix, and in any Indian jeweller's shop a bewildering mixture of the archaic and the modern is to be seen.

Shawl and Carpet Weaving.

It is only in Northern India (more especially in Kashmir) that the spinning and weaving of wool extends to the production of highly finished and artistic goods. Scattered here and there all over the country are hand loom factories where coarse blankets, carpets and other fabrics are produced. This indigenous wool industry is most important in the Punjab. The great centre of shawl production is Kashmir the industry has also been carried on for many years in parts of the Punjab, where it was introduced by colonies of Kashmir weavers. France was for many years the chief foreign market for Kashmir shawls, and the trade which was damaged also by the competition of cheap imitations produced at Paisley never recovered from the effects of the Franco-German War. The bulk of the Kashmir shawl weavers became carpet weavers or agriculturists. The latest report from the Punjab regards the case of the genuine shawl industry as almost hopeless. Carpet-weaving is carried on in various parts of the country. It is one of the many industries which is said to have been ruined by modern civilisation and in so far as many carpet factories in India are turning out an inferior article, according to designs furnished by dealers in Europe, this is correct. But it is wrong to ascribe the cheapening of the caste weaver's product and his increased output to underbidding by those jails in which the weaving of carpets has been introduced as an occupation for prisoners. On the other hand the jails, and especially that at Yerrowda, near Poona, have set a high standard by conserving old designs by using good material, and by avoiding the use of aniline dyes. Since the London Exhibition of 1881 a considerable export trade in Indian pile carpets has been created. Amritsar which caters for the American market in particular is the most important carpet-weaving centre in India but there are factories in many other places in Northern India, Rajputana, Central India and the United Provinces. In the lower provinces the industry hardly exists. Cotton and woollen carpets in other than pile stitch are made all over India. They are known as *dori* (a rug) and *shikharji* (a carpet) and are made in great variety. The poorer classes of Mahomedans generally use the cotton manufactures as praying carpets.

Apart from woven mats or carpets there is manufactured a great variety of so-called mats made from grass and other materials such as aloes, bamboo, reed, date and other palm leaves. Mats or rather screens (*tatties*) made of the sweetly scented *Khas-khas* are hung in front of doors etc., to afford shade and to cool, by evaporation, the air which passes through the moistened texture. Bamboo mats are manufactured here and there all over India, and in Bengal more especially dense mats (those constructed of reeds) are all but

universally used in house-construction. The traffic in *darnus mata* must therefore, be very great, and give employment to a far larger number of persons than can be learned from published statistics. In some of the Jalla aloe-fibre mats are produced and find a fair market while cane mats are not uncommon. These are formed by selected canes being placed parallel to each other and bound in position by cross-ries. They are exceptionally strong and especially valued in public offices where there is much traffic.

Embroidery

This is one of the most important of the art industries of India attaining its highest development in Northern India. The stitches employed in the various kinds of work are numerous, but all have this in common that they are formed by the needle being pulled away from and not drawn towards the worker. Mrs E. A. Steel has written a description of the Punjab darn stitch, known as *pukhari*, but most of the varieties still await their historian. Darn stitch is chiefly used on coarse cotton and chain stitch on silk or woollen fabrics the former covering the textile the latter ornamenting parts of it. European demands have led to the production of large quantities of silk embroidery in which coloured silks and gold and silver wire are employed, for curtains table cloths and so on. Another common form of embroidery is what is called chikan work on some white washing material such as calico or muslin in this the most usual form of stitch is the satin stitch combined with a form of button holding. The manufacture of lace and knitting have been introduced into India by missionaries. Laid embroidery with gold and silver wire (called *karchob* work because it is done on a frame) is common throughout the country in different forms. The wire are drawn in a number of centres particularly in Lahore Delhi Agra and Benares the details of wire drawing and the form of stitch together with the combination with precious

stones and silk make a great number of combinations of this work possible. A rough division between the two forms is that the massive kind is called *zardozi*, and the light and graceful *kamdani*.

Ivory

The carving and mlaying of ivory are still though perhaps in diminished importance quite much practised in India. The best material used is African Ivory which is whiter and of closer grain than the Indian but Sir George Watt has pointed out that the "fish tooth" Ivory or Mammoth Ivory of Siberia, is also used by Indian workers. The centres of the craft are Delhi Morshidabad in Bengal, Mysore Travancore and Moulmein. A curious fact about this industry is that though carving is generally an hereditary occupation there is no special caste identified with the craft like that of the silver smiths, and this is held to show that the industry as it now exists is of comparatively modern origin. Its development in recent times is due to the desire of sightseers in India to have something Indian to take away with them in an easily portable form. But some of the best work is still of great beauty and fine workmanship. The carving of horns and shells may possibly be counted as variations of this art.

Statuary

Part of that division of handicrafts which is vaguely connoted under the term *fine arts* is the subject of an article elsewhere in this book. Apart from painting it is not a very considerable division. Statuary except the wide-spread production of statuettes (in stone wood or cast metal) of mythological subjects is little practised. Various brass workers are expert in reproducing in miniature scenes of Indian life and animals of the country and at Lucknow some realistic terra cotta statuettes are produced. Wherever wood-carving is practised, and particularly in Burma statuary in that material is turned out and is used chiefly for decorative purposes.

Fisheries

The fisheries in Indian waters are unorganised in the modern sense of the term. A vast number of the coastal population are through natural circumstances engaged in fishing but in a great proportion of cases this means of livelihood shares their time with agriculture. The Bengal Government took the important step, a few years ago of initiating deep sea fishing by introducing a steam trawler. The undertaking served the purpose of investigation but we have yet to see commercial development on a large scale. Special measures have also been taken by the Madras Government with more or less success, there being in this province a Fishery Department of Government under an Honorary Director. The inland fisheries where there are large rivers or tanks are often important in many parts of India.

Bengal & Bihar & Orissa.

The importance of the Bengal and Bihar and Orissa Division—which are considered together as they belong to the same geographical region—may be gauged from the fact that rice and fish are the principal foodstuffs of the population and that not less than 80 per cent of the entire population consume fish as a regular article of diet. As a result 10 per cent of the population is engaged in catching, curing and selling fish, a percentage which rises to 20 in the Presidency Rajshahi and Dacca Divisions, moreover large numbers of cultivators are returned as fishermen also. The waters of the Bay, the rivers and swamps, warm with fish and every ditch and puddle furnishes small fry to eke out the frugal diet of the people. The best salt-water fish are the bekti, tezel, or mango-fish, mullet, pomfret, and sole. Inland the hilsa (*Clupea ilisha*) is found in shoals in the Ganges while the rohu (*Labeo rohita*) and the katal (*Catla buechanani*) abound everywhere, as do also innumerable other varieties much esteemed by the Bengalis. Prawns and crabs are caught in myriads. The mahseer is found in the higher reaches of the rivers which debouch from the Himalayas and in some of the rivers of the Chota Nagpur plateau.

The Bengali is a clever fisherman. In the Bay of Bengal he practises deep-sea fishing, drying his catch ashore on stakes driven into some sandy beach. The larger rivers are trawled from a sailing boat and the smaller streams are fished from weirs. The tanks and ditches are periodically dragged, the fish at other times being angled or caught in a cast net. Every streamlet is studded with hundreds of wicker fish-traps, while prawn cages are ubiquitous. The wonder is that any living fish escapes so persistent and remorseless in the hunt for the finny tribe. Every other interest is subordinated to its pursuit and not only is navigation impeded, but the drainage of the country is blocked by the obstruction of every channel and outlet.

The right of fishery in all but the largest rivers has generally been alienated by Government to private persons, having been included in the *zamindari* on which the permanent settlement of estates was based, but in some

cases the fishery itself is a separate estate. In tanks the right of fishing vests in the owner or occupant who may be some public body or a private individual. In the Bay and large rivers fishing is free to all. The importance of the fishing industry has led to its occupying the special attention of Government and its officers since the earliest times of the British connection with Bengal.

Altogether 644,000 persons in Bengal subsist by fishing or double the number subsisting by pasture. Nor is this to be wondered at considering the nature of the country and the resources, even though imperfectly developed of its rivers, its estuaries and the sea board. In addition moreover to those actively engaged in fishing, there are 324,000 maintained by the sale of fish so that the total number supported by catching and selling fish is very little under 1 million or 2 per cent. of the total population. Fishing is in Bengal not only accorded an honourable reputation and the ambition of fishing casts is to attain greater respectability by becoming cultivators. As it is, one in every twelve of those whose principal occupation is fishing also cultivates some land in Bengal and one in six in Bihar and Orissa.

One of the first to turn his attention to scientific study of the fisheries of the Bengal region was Russell who came out to India (Vizagpatnam) in 1851 and acted as Botanist in the Carnatic to the East India Company. A succession of investigators have continued his work and their reports show that the fisheries offered great scope for profitable development. In particular may be mentioned the great additions to the knowledge of the deep sea fishes in the Bay of Bengal made by Colonel Alexander Surgeon Naturalist to the Indian Marine Survey and, later Superintendent of the Indian Museum in Calcutta. After extensive inquiries he wrote that the fisheries of the Bay of Bengal are of a value well nigh incalculable. That they are unknown and for and unappreciated is unfortunately true, but it is equally true that they will prove a mine of wealth to whoever may have the enterprise to exploit them and the tenacity and incredulity that at present exists regarding them. I may state that as Botanist in the Indian Marine Survey I have carefully and I think thoroughly explored the Bay of Bengal from Falco Point in the Mahanadi Delta, to Devi Point on the Kistna Delta, and as these explorations have extended over four years I have had ample opportunity of correcting and verifying all my earlier conclusions. After minutely describing the various kinds of fish available he concluded, "I can only repeat the opinions expressed at the outset that the fisheries of the Bay of Bengal are of inestimable value, and that whoever has enterprise enough to take them up and strength of purpose and length of means to stick to them, will reap a manifold return. The only special question for consideration is that of carrying from sea to market."

In 1906 the Government of Bengal placed Mr K. G. Gupta, C.S.I. I.C.S. (now Sir K. G. Gupta) a Senior Member of their Board of Revenue on special duty in order to inquire into the same subject. He made a comprehensive and valuable report from which followed two important results—(1) His recommendation that a survey should be made of the fishery possibilities in the Bay of Bengal was immediately acted upon by Government and a typical steam trawler was set to work in the Bay under the direction of Dr. Travis Jenkins of the Lancashire Sea Fisheries who was specially engaged for the work and (2) a Bengal Fishery Department was established. Dr. Jenkins also specially investigated the fishery possibilities of the Sunderbans.

The results obtained by Dr. Jenkins were of great importance. He showed that trawling could be carried on successfully throughout the year and concluded that a properly organised scheme for developing the fishery would yield a profitable return on capital invested. He indicated the lines on which these fisheries could be exploited.

While the sea fishries of Bengal were thus investigated great industry was shown in the collection of information in experimental work and in the initiation of breeding operations on scientific lines in regard to the fresh water fisheries in both rivers and tanks. The frequent overflows of the great rivers in the rains and the necessity for studying the habits of the river fish added greatly to the work under this heading.

The Fishery Department after following up Dr. Jenkins' investigations regard the Sunderbans fisheries as capable of furnishing yearly not far short of 200,000 mannds of fresh fish while they point out that the area covered by the potential marine fishries having been shown to be roughly 10,000 square miles the supply from such a vast area must be well nigh incalculable. From statistics which have been carefully compiled it has further been ascertained that the annual imports of fish to Calcutta from all sources roughly represent 26 per cent of the actual requirements.

The future development of the fisheries on commercial lines will not only require some outlay of capital but will also demand some advance in the general conditions and material lot of the fisherman because the low esteem in which the occupation of fishing, and the dealing in fish is held has led to the whole industry being left in the hands of people with no capital, no education, no initiative and no business capacity. The most hopeful sign is officially stated to be the prospect of the spread of co-operative credit societies amongst fishermen in the near future. The situation is obviously one in which there is ample scope for a development of this kind. Meanwhile the Fisheries Department are carrying on persistent, careful and extensive propaganda work. As regards actual fishing, the Department are dividing their concentration on two points—(1) the possibility of increasing the actual number of fish present and (2) the possibility of capturing a larger proportion

of existing fish without exhausting the natural supply.

A problem at the present time is the absence of fishery laws in Bengal. The Fishery Department point out that as some legislation has been found necessary in every other civilised country in order to protect both fish and the community against the rapacity of man it may be assumed that sooner or later legislation will be found necessary in Bengal. At present we know so little regarding the habits of the commoner marketable fish that we have not sufficient data on which to formulate any extensive fishery laws. The results of the scientific enquiries will enable us first to determine whether legislation is necessary or not and then to define the nature and object of any laws desired.

Burma

The fisheries of Burma are important financially and otherwise. From time immemorial the exclusive right of fishing in certain classes of inland waters has belonged to the Government, and this right has been perpetuated in various fishery enactments the latest of which is the Burma Fisheries Act of 1905. Fishing is also carried on along the coast but the sea fisheries absorb but a small portion of industry. Most of the fishermen labour in the streams and pools which abound particularly in the delta districts. The right to work these fisheries mentioned in the enactments alluded to above is usually sold at auction and productive inland waters of this kind often fetch very considerable sums. River fishing is largely carried on by means of nets and generally yields revenue in the shape of licence fees for each net or other fishing implement used. Here and there along the coast are turtle banks which yield a profit to Government. In the extreme south the waters of the Mergul Archipelago afford a rich harvest of fish and prawns, mother-of-pearl shells and their substitutes green snails and trochus, shark fins, fish maws and beche-de-mer. Pearl diving with diving apparatus was introduced by Australians with Filipino and Japanese divers in 1893. They worked mainly for the shell, it being impossible for them to keep an effective check on the divers as regards the pearls. After about five years when the yield of shell had decreased they all left. The industry was then carried on by the Burmese.

Bombay

The Bombay sea fisheries are important and give employment to numerous castes, chief of which are the Kols, Pomfres, Mals, Stone and Lads. Fish are sold fresh while others such as the bombil are salted and dried. Large quantities of small fry are sold as manure. The patta found in the Indus and the mawal and mulseer are the principal fresh water fish.

Sea fishing is carried on by the Muhanna tribe of Mussalmans who reside for the most part in hamlets near Karachi. The principal fish caught on the coast are shrimps, rays, and skates. The pearl oyster is found at several

The Punjab

There has been a Department of Fisheries in the Punjab since 1912. It operates under a Director of Fisheries and is concerned with fishing both in the rivers of the province and in certain lakes. The three years' work already performed by the Department have almost entirely been concerned with preliminary work. In his review of the first report of the Department the Secretary to Government observed: "The general operations have consisted largely in investigation and experiment on the Beas and Ravi with a view to ascertaining the species of indigenous fish in these rivers, their habits and the locations of their spawning grounds and then enabling regulations to be framed for their preservation. The operations in the year ended May 31 1915 which is the latest period for which official details have been issued were largely a fulfilment of this promise and to the information accumulated regarding the biology and habits of fish was added a mass of facts bearing on the customs and practical rights and obligations of fishermen. Fishery regulations have been drafted and a licensing scheme worked out for various fishing regions and the Director has evolved a plan which he considers will in at once successful in preserving fish and acceptable to the fishermen, besides being a source of revenue to the Province. In some parts the river fisheries are based to monopolists and this is recognised to be a bad system and it has only existed in the past for want of a Fisheries Department to plan a

better system. It is believed that a scheme of conservancy can be evolved which, when completed, will make the Fisheries Department as a whole self-supporting from the first and ultimately a source of revenue and will at the same time protect the fishermen in their industry. The framing of these rules will require careful study of existing conditions and are likely to occupy a large share of the time of the department for several years.

A side issue of the work of the Department consists of trout cultural operations, the object being (states the Financial Commissioner in his last report) not so much to increase the food supply of the Province though to some extent this object is fulfilled as to create a valuable sporting property. One hundred and sixteen miles of fishable water have been stocked with trout and the fish appear to be spawning naturally. The Director of Fisheries estimates that including wild fry there were early last year at least half a million trout in 41 miles of river which would have been opened to fishing in 1914 but for the war. The Financial Commissioner says— "It cannot be anticipated that directly Government will obtain any considerable income from this source. The Director of Fisheries estimates the net income from 41 miles of water after providing for restocking at Rs. 400. But there is no doubt of the benefit that will accrue to the inhabitant of the valley from the influx of fishing visitors once local conditions have adapted themselves to the supply of their needs."

HALL MARKING OF PLATE

Various Trade Associations in India have at different times urged upon Government that in the jewellery and silver trade in India locally made goods in gold and silver are often sold in such a way as to constitute a fraud on the public and that in order to protect honest traders from unfair competition it is necessary that a voluntary system of Hall marking should be adopted. It is stated that the system would not only protect the public but would raise the standard of workmanship in India and that although Hall marking should be voluntary in the first instance it should be made compulsory eventually.

Objections to the proposal.—Government have so far thought it inexpedient to establish a system of Hall marking, whether voluntary or compulsory the main objections to the proposal being—

(1) That the legislation which would be required to introduce a compulsory system of Hall marking would be of a character entirely opposed to the economic policy of the Government of India and would be vexatious and restrictive in operation.

(2) That the provisions of a law of this character would be consistently evaded and that a result of its operation would be the discour-

agement of trade in British territory and its encouragement in Native States.

(3) That a system such as could be instituted without inordinate cost was not wanted by the great majority of the trade.

(4) That there was a great danger of counterfeiting Hall marks and their fraudulent application to inferior, spurious, or loaded ware.

(5) That there were only two Assay Offices in India and under a voluntary system of marking which could not be universal in its application it was highly improbable that the fees received would cover the expenses of offices established for the purpose at other places unless the fees were levied at such a rate as to constitute the imposition of a substantially heavy tax on the warra.

(6) That the outcome of the system would therefore be to inflict serious injury on workers in the metals in all places except in towns where the Assay Offices are located, most of these were poor artisans who could not afford the expenses of sending their goods to the Assay Offices and if they refrained from getting their goods stamped they would be handicapped in their trade and would probably have to retire from business in favour of wealthier dealers in large centres.

Tata Iron and Steel Co., Ltd.

The Tata Iron and Steel undertaking is the greatest of the modern industrial enterprises in India and will rank with the large concerns of the kind in Europe and America. This gigantic project owed its inception to the genius and enterprise of the late Mr Jamsetjee Tata of the firm of Messrs Tata Sons & Co. Before the formation of the Company the best brains of Europe and America were utilised in examining into the possibility of establishing in India a great iron and steel industry on a paying basis, and no effort was spared to render the investigation as thorough as possible. No less than Rs 5 50 000 were spent in the investigation before Messrs Tata, Sons & Co. established to their satisfaction that such works could be erected in India with every reasonable prospect of success. The site eventually fixed upon was at Sakchi a village in the Singhbhum District of Chota Nagpur some two miles from the station of Kalimati, on the Bengal Nagpur Railway.

Within reasonable distance of Sakchi which bids fair to become the Pittsburgh of India, very large deposits of high grade iron ore were discovered in proximity to coal of a suitable coking character for the manufacture of pig iron at a very low figure. Two rich fields containing very large supplies of this ore were secured on suitable leases by Messrs Tata Sons & Co., one situated in the State of Mourbhanj and the other in the Nagpur district. The intention being to limit operations for the present to the Mourbhanj hills in which 7 000 000 tons of ore had been proved to exist on the lower ridges alone. Numerous analyses have proved this ore to contain on an average over 60 per cent. of metallic iron. The royalties payable under the leases, based on an annual output of 200 000 tons average 2 625 annas per ton for the first 30 years, and 5 annas per ton for the succeeding 30 years. These ore beds are some 40 miles by rail from the site of the company's works and the ore is delivered at the rate of about Rs 2-4-0 per ton.

Messrs Tata Sons & Co. received from the Company in full settlement for the transfer of all mining rights concessions leases, etc. which they had acquired, and in full settlement of all expenses of investigation incurred by them prior to the formation of the Company 20 000 fully paid up Ordinary shares of Rs 70 each equivalent to a payment of Rs 15 00 000 and in addition a lump sum payment of Rs 5 25 000 in cash. In addition to these payments the syndicate of gentlemen who were instrumental in the actual formation of the Company received as remuneration for their services 1 500 fully paid up Ordinary shares equivalent to a payment of Rs 99 750.

Sakchi Works.

The Company's works were originally designed for an annual output of 120 000 tons of pig iron and the conversion of 80 000 tons into 72,000 tons of finished steel. The average imports into India of iron and steel of the classes which it was intended to produce amounted to approximately 450,000 tons per annum, so that the company had at

its doors a market largely in excess of its present productive capacity. In addition to the sale of its manufactured products it is hoped that a further source of revenue may be found in the export of a portion of the company's extensive deposits of high grade ore which can be placed 700 b at Calcutta at the very moderate cost of Rs 4 2-0 per ton approximately. On all ore sold as ore or exported Messrs Tata Sons & Co. are entitled to a royalty of 4 annas a ton. The company further possesses considerable manganese properties at Ramnara in the Central Provinces which will shortly be connected up by rail with the Bengal Nagpur Railway from which it is hoped to secure a considerable revenue.

The following concessions were granted by the Government of India to the Company—

(1) The purchase by the State of 20 000 tons of steel rails annually for a period of ten years subject to the condition that the rails comply with the Government specification and that the prices be not more than the prices at which similar rails could be delivered c i f if imported into India.

(2) A reduced rate of 1-25 of a pie per maund per mile equivalent to 15 of an anna per mile on all materials and plant required for construction and on all raw material for the works, subject to a minimum mileage charge and to revision at the end of ten years. The reduced rate has also been made applicable to all finished products and bye-products despatched for shipment from Calcutta.

The entire cost of the works inclusive of the purchase of mining rights colleries and all charges incurred in the construction of the town of Sakchi for the housing of the small army of the Company's employees was put down at Rs 2 40 00 000 and it was estimated that on the average prices ruling during the ten years 1896 to 1907, the manufacturing profit assuming a sale of 8 000 tons of pig iron and 72,000 tons of finished steel would after meeting working expenses & depreciations etc amount to Rs 24 15 000. This sum it was calculated would, after meeting interest on debentures and commissions payable to the Managing Agents enable the Company to pay the stipulated dividends of 6 per cent on the preference capital 8 per cent on the ordinary capital and 25 per cent on the deferred capital and leave a surplus of approximately Rs 7 15 000 for distribution in equal shares between the ordinary and the deferred capital.

Finance

The Company was registered on 26th August 1907. The Directors are Sir D J Tata Kt (Tata Sons & Co) Special Director *Chairman* Sir Sassoon David, Bart (Sassoon J David & Co) Sir Cowasjee Jehangir Bart (Sir J Cowasjee Jehangir & Co) Sir Vithaldas Damodhar Thackersey Kt (Thackersey Moodli & Co) Mr Gordhaadass Khastan (Khastan Muckanji & Co) The Honble Mr Haubrey Currimbhoy Esq. (Currimbhoy Ebrahim & Co),

Mr Narottam Morarjee Gokaldas (Morarjee Gokaldas & Co.), Mr M. A. Tanna (of Bhavnagar State), Mr C. V. Mehta (Vijbhairandas Atmaram & Co.), Mr Shapurji B. Broacha, Esq. (Tallochchand and Shapurji) (Debtenture Director), Mr R. D. Tata (Tata Sons & Co.) Mr A. J. Pithoria (Tata Sons & Co.) (Special Director) Managing Agents—Messrs Tata Sons & Co.

The following figures explain the financial arrangements of the Company—

Capital authorised and issued—Rs 2,31,75,000
Ordinary capital—Rs 1,00,00,000 Preference capital—Rs 75,00,000 Deferred capital—Rs 56,75,000 Capital subscribed on the 30th June, 1914—Rs 2,15,57,700 Ordinary capital—Rs 1,34,00,250 Preference capital—Rs 2,82,450 Deferred capital—Rs 6,75,000 Amount called up Rs 2,30,80,55 Ordinary shares, Rs 1,49,46,675 Preference shares, Rs 74,58,900 Deferred shares Rs 6,75,000 In addition Debtenture capital to the extent of Rs 60,00,000 was issued.

Present Position

The Company started operations in August, 1907 and the construction and equipment of the work were regarded as practically completed by the end of January 1913 at a total capital outlay on that date of Rs 21,00,000.

The blast furnaces worked well from the start and turned out pig iron of excellent quality. The steel furnaces gave a considerable amount of initial trouble but these difficulties were completely overcome.

The annual report of the Tata Iron and Steel Company issued in November 1915 showed a net profit during the year ending 30th June 1915 amounting to Rs 24,83,088 which with the sum brought forward from the preceding year's account made a total sum of Rs 25,83,760. Dividend was paid on Preference shares for the twelve months ending 30th June 1915 at the rate of six per cent per annum less income-tax and on Ordinary shares at the rate of 8% per annum.

The Chairman of the company stated at the annual meeting in November 1914. So far the war has not affected us prejudicially on the contrary to a certain extent it might be said that the stoppage of imports of iron and steel goods from Europe has given an impetus to our products which are being more actively inquired for from many remote parts of this country. The war has taught us one lesson namely to endeavour to be self-contained

as much as possible and to be independent of imported foreign material. Altogether we are on the way to make our works more self-reliant than hitherto. The report stated that the works began making steel required for the manufacture of shells etc. for military purposes from August 1914. Up to date a large tonnage of such steel has been supplied to the various workshops and factories in India making shells for Government. In view of the great and increasing demand for the products of the company such as steel rails structural materials etc. the directors sanctioned the installation of two new open hearth furnaces, a pressed steel shape plant a cast iron pipe foundry and the consequent necessary extensions to the power plant and the housing capacity for staff.

Exploration in Mournbhaj State resulted in the location of eight deposits of iron ore within from 12 to 25 miles from the present mines all being surface deposits which can be mined easily and cheaply. Test pits indicate the presence of about double the amount at the present mines and of at least equal quality. The work of proving and surveying the magnetic deposits in Mysore State has been going on also deposits of both iron ore and chrome ore have been located in this State.

Exploration is being made for coal in Korea State in the Central Provinces.

In October 1914 about one half of the German crew in the open hearth department was removed to Ahmednagar and the remainder followed in December necessitating the importation of almost an entire new crew who because of the new and strange conditions could not for some months maintain the average production. The output subsequently improved considerably and the quality is the best in the history of the plant.

The average number of employees in 1915 was 7,899 men and women. The number of European covenanted hands was 121 and the number of local European employees 53. The balance of labour is Indian. In addition to the labour employed at Sakchi mentioned above the Company gives employment to approximately 3,000 labourers at its various collieries. The above figures do not include the employees of contractors engaged in the work of improvements or extensions.

The two new open hearth furnaces just sanctioned will increase the capacity of the steel works by about 6 per cent.

Bombay Hydro-Electric Scheme.

The Tata Hydro Electric Power Supply Company, Limited, was founded in November, 1912, with the friendly encouragement of the Bombay Government, to exploit the possibilities of the Western Ghats, 60 miles distant from Bombay with their heavy and unrelenting mountain rainfall, in order to provide a big supply of electric energy to the City of Bombay, where the great and increasing industrial developments offer a large field for its use. The company was formed primarily to acquire and work the concession and license for the supply of electricity in Bombay conferred upon Messrs. Dorabji Jamsetji Tata and Burdonji Jamsetji Tata by the Government of Bombay in March, 1907. The license applies to the town and island generally but excludes every cantonment, fortress, arsenal, factory dockyard camp building or other place in the occupation of Government for naval or military purposes. The license, including all rights and concession incidental to it, was transferred to the company for the sum of Rs. 12,50,000 in 1,350 fully paid up ordinary shares of the company.

Capital authorised—Rs. 2,00,00,000. (Ordinary shares—Rs. 1,00,00,000. Preference shares—Rs. 1,00,00,000.) Capital issued—Rs. 1,60,40,000. (Ordinary shares—Rs. 89,50,000. Preference shares—Rs. 70,90,000.) In addition, debenture capital to the extent of Rs. 85,00,000 has been issued.

The qualification of every Director of the company excepting the *ex officio* Director, the Special Director and the Debenture Director is the holding of shares in the company of the nominal value of Rs. 30,000. Messrs. Tata Sons & Co. the Managing Agents of the company are appointed as such for a term of 15 years, from the date of the registration of the company and it is provided that during such time as they are Managing Agents any member of their firm shall be *ex officio* a Director of the company and shall also be *ex officio* the Chairman of the Directors. Further, so long as Messrs. Tata hold shares in the capital of the company to the nominal value of Rs. 6,00,000 they have the right to appoint a second Special Director whether a member of their firm or not. Further every shareholder of the company holding in his own right shares to the nominal value of Rs. 5,00,000 has the right to appoint a Special Director, to remove such Director and to appoint another in his place. Similarly the debenture holders have the right to appoint a Director, or remove such Director or to appoint another in his place. A Director who is out of India may, with the approval of the Directors, appoint any qualified person to be an alternate Director during his absence out of India.

The following are the present Directors—Mr. D. J. Tata, Mr. Tata Sons & Co. (Chairman), Mr. Benson David, Esq. (Benson J. David & Co.), Mr. Shapurji B. Broacha, Esq. (Tullochchand & Shapurji) The Hon. Mr. Lalubhai Bhatt, Esq. C.M.S., Mr. M. A. Tana (of Bhavnagar State), Mr. A. N. Datar (of Baroda State), Mr. K. J. Bhambha (late of Mysore State), Mr. Keshu Tata (Tata Sons & Co.), Mr. R. D. Tata (Tata Sons & Co.), Mr. Vikhadas Damodar Thakkersey, Esq. (Thakkersey Mooljee Sons & Co.), Mr. Nathuram Morjee Goodlad (Goodlad Brothers & Co.), and Mr. A. J. B. Smith (Tata Sons & Co.).

The hydro-electric engineering works in connection with the project are situated at Lanvora above the Bhor Ghat.

The rainfall is stored in three lakes at Lanvora, Walwan and Shurawta whence it is conveyed in masonry canals to the Forebay or the receiving reservoir, above the Reversing Station on the G. I. P. Railway. The Company's Power House is at Khopoli at the foot of the Ghats where the stored water is conveyed through pipes fixed in the dam of the Forebay the fall being one of 1,725 feet. In falling from this height the water develops a pressure of 750 lbs. per square inch and with this force drives the Turbines or waterwheels. Originally the Company started with a subscribed capital of Rs. 1,20,00,000 and the Scheme was restricted to 80,000 Electrical Horse Power but the Company in 1912 in view of the increased demand of Power from the Bombay Mills decided to extend the Works by the building of the Shurawta Dam and issued further shares which were allotted at varying premiums the total obtained being placed to reserve. The capacity of the Scheme being increased to more than 40,000 Electrical Horse Power.

Interest at the rate of 4 per cent per annum is being paid with the consent of Government to shareholders of both Ordinary and Preference shares during the construction of the company's works as a charge against capital. (This payment may not extend beyond the close of the half year next after the half year during which the works of the company are actually completed.)

The works were formally opened by H. K. the Governor of Bombay on the 31st February 1911 and on the following day a start with the supply into Bombay City was made with two mills taking about 1,400 H. P. between them. The following is the state of progress as shown by the latest official reports of the Company. The great construction works above and below ghats have nearly reached completion. Twenty mills are completely equipped and receiving power. Eight mills are receiving power for partial requirements. Load is being added continuously with due regard to the convenience of the consumers. Arrangements are now being made for the supply of power to the Government of 28 mills with motors of the aggregate B.H.P. of 32,000 in service. In addition to the cotton and flour mills who have contracted to take supply from the company for a period of ten years the company have entered into a contract with the Bombay Electric Supply and Tramways Company Limited for energy required by them for two of their sub-stations and the necessary plant for one of these has been ordered.

There remain many prospective buyers of electrical energy and the completion of the company's full scheme, calculating the Shurawta Lake even up to its full height of 2,162 F.S.L., will barely suffice to meet all such demands. Besides the Bombay cotton mills, which alone would require about 100,000 horse power, there are the tramways with possibilities of suburban extensions. Then there is the Port Trust with its docks and railways in addition to the two large main line railway companies with different traction problems and their workshops requiring power. Modern practice has so conclusively proved the benefits

Bombay Hydro-Electric Scheme

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of the electric drive that it is a safe thing to predict a large demand for electrification in Bombay before long amongst these consumers. This total demand is roughly estimated at about 160 000 h.p.

The full capacity of the company's present lakes cannot possibly meet such a large demand and in the hope of supplying it at some future date it was necessary to go further afield and find fresh sources of power which could supplement the present capacity and also serve as a standby in case of need. The Board having accepted this view it was resolved to ask a responsible officer to carry out investigations with a view to finding a suitable site

in the vicinity of Bombay possessing advantages similar to their present scheme. The speaker was entrusted to Mr. Gibbs, the General Manager of the company and he has been successful in discovering other valleys in the Ghats which are highly promising. With the assistance of Government survey parties have been at work making careful investigations and the whole problem is being carefully considered by expert advisers. The directors authorised the investigation of new areas on the ghats for the extension of the present scheme to meet any prospective demand for energy. Suitable sites have been chosen and the result of the investigations shows that considerable power will be made available on a highly satisfactory basis.

The Opium Trade.

The description of opium must be distinguished. **Bengal opium** which is manufactured from poppy grown in the United Provinces and Malwa. Opium which is almost entirely produced in certain Native States in Central India and Rajasthan.

Bengal Opium.—Cultivation of poppy is only permitted under license. The cultivator is given advances are made by Government. No interest is required to sell the whole of his production to the Opium Factory at Calcutta at a rate fixed by Government, now Rs 78 per seer of 70° consistency. The area licensed for cultivation has in recent years been much reduced as a consequence of the agreement between the Government of India and the Chinese Government, and is now restricted to the United Provinces. The following are the figures of the area under cultivation and of production —

—	Average under cultivation	Mannds of opium produced	Number of chests made
1811-12	200,672	31,473	23,126
1910-11	302,968	44,928	23,611
1909-10	354,577	57,866	36,172
1908-9	361,332	61,808	38,895
1907-8	468,548	71,340	51,230

At the Factory two classes of opium are manufactured.

(1) "Provision" opium intended for export to foreign countries. This opium is made up in bags or cakes each weighing 55 lbs. 70 cakes weighing 1405 lbs. being packed in a chest.

(2) **Richest** opium intended for consumption in British India. This is made up in cubic packets each weighing one seer 60 packets being packed in one chest. It is of higher consistency than "provision" opium.

"Provision" opium is sold by public auction in Calcutta, the quantity to be sold being fixed by Government. This quantity has been reduced in recent years in accordance with the agreement with China, the figures being 15,445 chests in 1811 and 8,700 chests in 1912. Exports to China have been stopped altogether since 1913.

Statistics of Trade.

The difference between the cost of manufacture and the price realized at these sales may be regarded as the duty levied by Government —

—	Number of chests sold.	Average price realised at auction sales per chest	Average cost of manufacture per chest
1811-12	23,230	2,790	†
1910-11	27,560	2,590	526
1909-10	63,200	1,612	515
1908-9	65,900	1,380	525
1907-8	64,000	1,350	508

The exports of Bengal opium to foreign countries have been in recent years —

	Number of chests	Value
1918-14	9,151	Rs. 2,01,88,000
1912-13	18,354	5,39,66,940
1911-12	24,162	6,71,48,206

Malwa Opium.—The poppy from which Malwa opium is manufactured is grown chiefly in the Native States of Indore, Gwalior, Bhopal, Jaboor, Dhar, Ratlam, Mowar and Kotah. The British Government has no concern with the cultivation of the poppy, or the manufacture of the opium, but it used to regulate before exports to China were stopped under the system explained below the import of Malwa opium into and the transport through its territories. As the chief market for Malwa opium was China, and as the States in which the drug is produced had no access to the sea except through British territory the British Government were able to impose a duty on the importation of the drug on its way to Bombay for exportation by sea.

No statistics of cultivation or production are available. The poppy is sown in November, the plants flower in February and by the end of March the whole of the opium has been collected by the cultivators who sell the raw opium to the village bankers. It is then bought up by the large dealers who make it up into balls of about twelve ounces and store it until it is ready for export usually in September or October. The opium is of 90° to 95° consistency and is packed in half chests. Considerable dryage took place in the case of new opium while transported to Bombay.

To enable Malwa opium to reach Bombay a pass from the Opium Agent or his Deputy was required. This pass was not granted until the duty imposed by the Government of India had been paid. This duty was until 1912 at the rate of Rs 609 per chest, but was raised to Rs 1,200 in that year consequent on the introduction of a system similar to that applicable to Bengal opium. Under this system the Collector of Customs, Bombay sold the right of exporting opium to the highest bidder at monthly auction sales. On payment of the price bid and of duty at the enhanced rate the bidder was given a certificate authorising him to import opium from Malwa. The number of chests fixed for export in the year 1913 was 14,880. But out of these only 2,755 were exported during the year owing to the large accumulation of stocks in China markets. Sales of Malwa opium for export to that country have ceased since January 1913 and the trade has become extinct since 17th December of that year when the last shipment was made.

Practically the whole of the Malwa opium exported from Bombay went to China. There is no market for it in the Straits Settlements. A few chests annually are shipped to Zanzibar. The quantity and value of exports from Bombay in the last three years were as follows —

	Quantity	Value
1918-14	2,755 chests	Rs. 1,46,52,500
1912-13	11,203	5,35,11,323
1911-12	14,082	6,37,60,481

† Figures not available.

The Opium Trade.

Revenue.—The revenue derived by the Government of India from opium in the last six years is as follows:—

	£
1911-12	5,961,278
1912-13	5,124,592
1913-14	1,624,878
1914-15	1,596,100 (Revised Estimate)
1915-16	1,798,000 (Budget Estimate)

Agreement with China.—The fluctuations in the revenue derived from opium are directly attributable to the trade conditions arising out of the limitation of opium exports. In 1907 being satisfied of the genuineness of the efforts of the Chinese Government to suppress the habit of consuming opium in China, the Government of India agreed to co-operate by gradually restricting the amount of opium exported from India to China. In 1908 an arrangement was concluded by which the total quantity of opium exported from India was to be reduced annually by 5,100 chests from an assumed standard of 87,000 chests. Under a further agreement, signed in May 1911 the cessation of the trade was to be accelerated on evidence being shown of the suppression of the

native production of opium in China, and in accordance with this agreement a further limitation was placed on exports to Chinese ports. The reduction of exports led to an increase in the price of the drug in China and a corresponding rise in the price obtained in India at the auction sales. For some considerable time, however, in 1912 the trade in China was paralyzed by the imposition by Provincial Governors in defiance of instructions from the Central Government of restrictions on the importation and sale of Indian opium. Stocks accumulated rapidly at Shanghai and Hongkong and the position in December 1912 had become so acute that a strong and influential demand was made on the Government of India to relieve the situation by the suspension of sales. Sales were accordingly postponed both of Bengal and Malwa opium and in order to afford the Malwa trade the most complete relief, the Government of India undertook to purchase for its own use 11,258 chests of Malwa opium which remained to be exported in 1913. The present position is that the export trade to China has ceased since 1913. Exports to countries other than China will, of course, not be directly affected.

HIDES, SKINS AND LEATHER.

India's local manufactures of skins and leather have steadily increased in recent years. Thus the exports of raw hides and skins has risen from £5,559,109 in 1908-09 to £7,845,484 in 1912-13 and the exports of leather from £2,761,169 to £3,082,498 in 1912-13. Previous to the outbreak of war the trade in raw hides in this country was good there was a large demand for hides and prices ruled high. While in the continental markets stocks were high owing to overtrading in the previous year the United States had a shortage which was estimated at approximately two million pieces. On the declaration of war the trade which had up till then been brisk was seriously dislocated. Exports to enemy countries (especially to the great emporium of Indian hides Hamburg) were stopped and exporters had to find new markets for the raw material. The raw hide business of India, it is well known, has hitherto been largely, if not quite, entirely in the hands of German firms or firms of German origin. Germany has had the largest share of India's raw hides. In the four months before the outbreak of war she took 39 per cent of the total exports. In 1912-13 she took 32 per cent and in 1913-14, 30 per cent. Raw hides were exported to Trieste in considerable quantities whence they were taken to Germany or Austria. In the four months before the outbreak of war 15 per cent of India's exports passed through Trieste. In 1913-14 the percentage was 21.

The year's exports of raw hides in 1914-15 declined from 55,787 tons valued at Rs 44 crores (£5½ millions) to 35,699 tons valued at Rs 31 crores (£3½ millions). The exports of raw skin fell from 24,328 tons valued at Rs 44 crores (£5½ millions), to 20,427 tons valued at Rs 24 crores (£3½ millions). The total exports of hides and skins tanned or dressed, increased in 1914-15 by 10 per cent in quantity to 324,425 sq ft and by 12 per cent,

in value to Rs 41 crores. Madras ports accounted for 74 per cent of the total exports of tanned hides and 83 per cent of skins dressed or tanned, and practically the whole of the remainder was shipped from Bombay.

The trade in hides and skins as also the craft in leather manufacture are in the hands either of Mahomedans or of low caste Hindus and are on that account participated in by a comparatively small community. The traffic is subject to considerable fluctuations concomitant with the vicissitudes of the seasons. In famine years for instance the exports of untanned hides rise to an abnormal figure. The traffic is also peculiarly affected by the difficulty of obtaining capital and by the religious objection which assigns it to a position of degradation and neglect. It has thus become a monopoly within a restricted community and suffers from the loss of competition and popular interest and favour.

No large industry has changed more rapidly and completely than that of leather. By the chrome process, for example, superior leather may be produced from the strongest buffalo hides in seven days, from cowhide in twenty four hours, and from sheep and goat skins in six to eight hours and these operations formerly took thirty days or as much as eighteen months. Of these changes the native tanners of India were slow to take advantage, but in spite of general backwardness the leather produced by some of the tanneries, especially those under European management, is in certain respects equal to the best imported articles. But as a result of this being slow to adopt up-to-date methods, there has been a decline in the demand for Indian dressed skins while the demand for raw skins has increased considerably. The chief tanneries are situated at Calcutta, Calcutta and Bombay.

By-products

Leather-making in India.—India possesses a large quantity of rawhide, tanning materials such as gamboge, bark and bark, Indian musk, the various barks, Mangrove, and Myra, besides the bark and such like materials and the various methods and contrivances hides and skins are extensively cured and tanned and the leather worked up in response to an

immense, though purely local, demand. But the inferior quality of the leather so used by native methods may be illustrated by the fact that the articles produced rarely fetch more than one-fourth the value of the corresponding articles made of imported or Cawnpore (European factory) leather.

WILD BIRDS' PLUMAGE

The Bill for prohibiting the importation into England of wild birds' plumage, which was introduced into Parliament in 1913, was the occasion of a fierce controversy on the nature of the plumage traffic. But organised opposition to the Bill failed to convince the public that the plumage trade was not one of great cruelty. Among well-authenticated cases from India that prove its cruelty was one from Karachi, in 1913, in which two men were fined for sewing up the eyes of birds so that they should not fight in their cages. It was stated that this was a common practice of fishermen in Sind who breed birds and export their feathers to England. This according to *The Times*, is not only another apparent example of the way in which the prohibition on the export of plumage from India is notoriously evaded by smuggling into the open market of England, but shows how easily abuses might arise under any system which gave a general sanction to feather farming. All legitimate methods of breeding birds for their plumage can be safeguarded as definite exceptions under an Act prohibiting importation and only the exclusion by law of all plumage not so specified can put England abreast of the United States and of her own daughter Dominions in the suppression of a barbarous industry.

Plumage birds.—The birds most killed on account of their plumage in India are paddy birds, kingfishers, bustards, junglefowl, egrets, pheasants, parquets, peafowl, and hoopoes. Perhaps the most extensively killed in the past has been the Blue Jay (*Coracias Indica*). The smaller Egret is met with throughout India and Northern Burma. It is a pure white slim heron which develops during the breeding season a dorsal train of feathers which elongates and becomes "dramoised," as it is expressed that is to say the barbs are separate and distinct from each other, thus forming the ornamental plume or algreto for which these birds are much sought after and recklessly destroyed. Thirty years ago the exports

were valued at over six lakhs in one year but since 1895 the export trade has steadily diminished until now it is almost non-existent.

Legislation.—Indian legislation on the subject will be studied with interest by those who have followed the course of legislation on this subject in other countries. Until 1887 no legislation was considered necessary in India. An Act of that year enabled local governments and municipal and cantonment authorities to make rules prohibiting under penalties the sale or possession of wild birds recently killed or taken during their breeding seasons and the importation into any municipal or cantonment area of the plumage of any wild birds during those seasons and local governments were empowered to apply these provisions to animals other than birds.

Afterwards, in 1902 action was taken under the Sea Customs Act to prohibit the exportation of the skins and feathers of birds, except feathers of ostriches and skins and feathers exported *bona fide* as specimens illustrative of natural history. Act VIII of 1912 goes much further than the previous law. It schedules a list of wild birds and animals to which the Act is to apply in the first instance, enables local governments to extend this list, empowers local governments to establish close times, presumably during the breeding seasons in the whole of their territories or in specified areas for wild birds and animals to which the Act applies and imposes penalties for the capture, sale and purchase of birds and animals in contravention of the close time regulations, and for the sale, purchase and possession of plumage taken from birds during the close time. There is power to grant exemptions in the interests of scientific research, and there are savings for the capture or killing by any person of a wild animal in defence of himself or of any other person, and for the capture or killing of any wild bird or animal in *bona fide* defence of property.

BREWERIES

Statistics compiled from official returns show that there were in 1913, 22 breweries in British India, of which one did not work during the year. Fifteen of these are private property and seven are owned by six joint-stock companies with a nominal capital of Rs. 26,71,000, of which Rs. 12,14,240 was paid up at the end of 1913. Nine of the breweries are located at Calcutta, in the Muzaffarpur district, in Bombay, the largest brewery in the country at

Murree, the Bangalore Solan Rawalpindi Kasauli Poona, and Mandalay, breweries standing next in the order shown. Production was largest in 1902, since when it has tended to decline, while imports of foreign beer have increased proportionately except during the war in the year 1907 the process was reversed, internal production having advanced slightly and imports decreased.

Trade Marks.

In 1914 Indian breweries produced nearly 21 million gallons against 8.6 million gallons in 1913. Imports during 1914-15 amounted to 2.1 million gallons as against over 4½ million gallons in the previous year.

A substantial quantity of beer produced locally is consumed by the British troops in India. In 1907 the Army Commissariat purchased some 38 per cent of the total production and the average purchases in the five years

1902-1907 amounted to 2,653,616 gallons yearly. From the 1st January 1908, the contracts with Indian breweries for the supply of malt liquor to British troops have been discontinued, each British regiment being left free to make its own arrangements to obtain the necessary supply as a result the figures of Army consumption are no longer readily available.

GRAIN ELEVATORS.

The question of adopting elevators for the handling of Indian grain has engaged attention for some time and has assumed increased importance in the light of the railway congestion experienced in recent years and more particularly in the grain season. In the last three years great strides have been made by other countries in the adoption or perfecting of the elevator system and a large mass of contemporary data on the subject has been brought together by the Commercial Intelligence Department. Since the subject is one that can not receive adequate consideration in India till the facts are before the public these have been embodied in a pamphlet entitled *Indian Wheat and Grain Elevators* by the late Mr F. Noel Paton, Director General of Commercial Intelligence to the Government of India. The work gives full particulars regarding India's production of wheat and shows that less than one eighth of the crop is exported. It describes the conditions under which the grain is held and the risks that it runs. It is pointed

out that the cultivator has no adequate means of preserving his wheat and that he is constrained to sell at harvest time also that the prices then obtained by him are considerably lower than those usually current in later months. The constant nature of the European demand is explained and an attempt is made to gauge the probability that the enormously increased quantities of wheat to be expected when new irrigation tracts come into bearing would be accepted by Europe at one time and at a good price or could be economically transported under a system in which a few months of congestion alternated with a longer period of stagnation. Figures are given which suggest that in practice the effect of equipping railways to do this is to intensify the evil and so to engage in a vicious circle. The author explains the structural nature of elevators and their functions as constituted in other countries. Particulars are given as to the laws that govern their operations in such countries.

TRADE MARKS

The Indian Merchandise Marks Act (IV of 1889) was passed in 1889 but its operation in the earlier years was restricted, especially in Calcutta, in consequence of the lack of adequate Customs machinery for the examination of goods. In 1894, with the introduction of the present tariff, the Customs staff was strengthened for the examination of goods for assessment to duty, and this increase enabled examination to be made at the same time for the purposes of the Merchandise Marks Act. The Act was intended originally to prevent the fraudulent sale of goods bearing false trade marks or false trade descriptions (as of origin quality weight or quantity). While the Act was before the Legislature a provision was added to require that all piece-goods should be stamped with their length in yards. In this respect these goods are an exception, for the Act does not require that other descriptions of goods should be stamped or marked, though it requires that when goods are marked the marks must be a correct description. The number of detec-

tions under the Act during the twenty years ending 1912-13 has been —

Average of the five years ending	1897-98 1,299
	1902-03 1,411
	1907-08 1,188
" "	1912-13 1,090

Detection is but rarely followed by confiscation, and there have been only 169 such cases during the stated twenty years. Usually, detained goods are released with a fine and this procedure was followed in 19,382 cases out of the 29,774 detentions ordered in the same period. In 10,364 cases the detained goods were released without the infliction of a fine. In this period of twenty years 42 per cent of the detentions were on account of the application of false trade marks or false trade descriptions. In 56 per cent of the same detention was ordered because the country of origin was either not stated or was falsely stated, and in 31 per cent because the provisions of the Act for the stamping of piece-goods had been infringed.

INDIAN COMMERCIAL CONGRESS

A proposal was recently made by the Hon ble Sir Kesabhai Currimbhoy for the holding of periodical conferences of representatives of the several Chambers of Commerce in India. The suggestion was taken up by the Indian Merchants Chamber and Bureau in Bombay and that body forwarded to the several Chambers of Commerce and Commercial Associations a Draft Constitution of the proposed Indian Commercial Congress. The objects of the Congress are stated as follows—(1) The Indian Commercial Congress is founded for the purpose of promoting by all legitimate and constitutional methods the best interests of trade, commerce and manufactures of the country and all cognate matters connected therewith. (2) For the fulfillment of the objects aforesaid the Congress shall hold its session from time to time as occasion may demand but at least once every three years at such place and at such date as may be determined discuss all mercantile and industrial affairs, prepare and submit representations thereon to the Provincial Governments or the Government of India or the Secretary of State or the British Parliament or other authority for the removal and prevention of injurious commercial measures and the introduction of others which may be calculated to promote the general commercial and other cognate interest of the country and otherwise to take such action as may be conducive to the

accomplishment of the objects in view. The Congress is to consist of delegates from such Chambers, Associations, etc. throughout India as may be recognised in that behalf by the Congress in open session and these delegates shall elect a Committee of Management on which proportional representation (not yet specified) shall be assigned to principal commercial centres enumerated. The President and Vice-President are to be appointed by a Special Committee appointed by the Congress in open session.

In November it was announced that the first meeting of the Commercial Congress would be held in Bombay on December 26. A circular summarising the progress already made points out that while the original idea was to hold the Commercial Congress either annually or bi-annually this has developed into a project to give the movement a more concrete, tangible and permanent form by the establishment of a Chamber which will be the chambers of commerce and commercial associations and be fully representative of their interests. Thus all the leading commercial associations in Bombay were represented in the Reception Committee of the first Congress and they considered and formulated a draft constitution of the proposed Association of Chambers of Commerce in India. The session was held on December 27th and 28th.

INVENTIONS AND DESIGNS

The Inventions and Designs Act (No. VI) of 1888 was replaced by the Indian Patents and Designs Act (No. 11) of 1911 which came into force on the 1st January 1912. The object of the Act was to provide a simpler more direct and more effective procedure in regard both to the grant of patent rights and to their subsequent existence and operation. The changes made in the law need not here be referred to in detail. They gave further protection both to the inventor by providing that his application should be kept secret until acceptance, and to the public by increasing the facilities for opposition at an effective period. At the same time a Controller of Patents and Designs was established with power to dispose of many matters previously referred to the Governor General in Council and provision was made for the grant of a sealed patent instead of for the mere recognition of an exclusive privilege. The provisions of the Act follow with the necessary modifications those of the British Inventions and Designs Act of 1907.

The records of proceedings under the Act of 1888 show a steady though not very rapid increase in recent years in the number of applications for leave to file specifications. The number of applications received increased from 524 in 1902 to 807 in 1911 and the number of specifications filed (i.e. of exclusive privileges required) from 375 to 603. The total number of applications under the Act up to the end of 1911 was 12,079 as the result of which 9,113 specifications were filed. The number of patents in force at the end of 1911 was 2,917. Only a small proportion of the

applications—some 60 or 70 a year—came during the decade from Indians. The majority came from persons not resident in India. The range of inventions for which protection was sought was very wide. Inventions connected with railways, electrical contrivances and chemical appliances and preparations being most numerous.

The latest statistics available for the year 1912 are as follows—

Inventions	
No. of applications received for acceptance	
All applications filed	878
No. of specifications filed	104
patents issued	284
Subject of applications—	
Use of seeds, mineral substances,	5
Textiles	11
Railways	67
Lamps and Burners	16
Electrical contrivances	47
Spinning and Weaving Machines	20
Water lifts and Pumps	15
Sugar-cane and other Mills	5
Chemical Appliances and Preparations	104
Treatment of metals	20
Improvements in Building and	
Building Materials	27
Flying Machines	6
Working Machines	16
Others	280
Designs.	
No. of applications for registration of copyright in a design	343
No. of designs registered	283
Income from Fees	£ 4,801

Coinage, Weights and Measures

As the currency of India is based upon the rupee, statements with regard to money are generally expressed in rupees nor has it been found possible in all cases to add a conversion into sterling. Down to about 1874 the gold value of the rupee (containing 165 grains of pure silver) was approximately equal to 2s or one-tenth of a £ and for that period it is easy to convert rupees into sterling by striking off the final cipher (Rs 1000=£100). But after 1873 owing to the depreciation of silver as compared with gold throughout the world, there came a serious and progressive fall in the exchange, until at one time the gold value of the rupee dropped as low as 1s. In order to provide a remedy for the heavy loss caused to the Government of India in respect of its gold payments to be made in England, and also to relieve foreign trade and finance from the inconvenience due to constant and unforeseen fluctuations in exchange, it was resolved in 1893 to close the mints to the free coinage of silver and thus force up the value of the rupee by restricting the circulation. The intention was to raise the exchange value of the rupee to 1s 4d and then introduce a gold standard at the rate of Rs 15=£1. From 1899 onwards the value of the rupee has been maintained with insignificant fluctuations at the proposed rate of 1s 4d and consequently since that date three rupees have been equivalent to two rupees before 1873. For the intermediate period between 1873 and 1899 it is manifestly impossible to adopt any fixed sterling value for a constantly changing rupee. But since 1899 if it is desired to convert rupees into sterling, not only must the final cipher be struck off (as before 1873) but also one third must be subtracted from the result. Thus Rs 1000=£100—1= (ab ut) £67.

Notation.—Another matter in connection with the expression of money statements in terms of rupees requires to be explained. The method of numerical notation in India differs from that which prevails throughout Europe. Large numbers are not punctuated in hundreds of thousands and millions but in lakhs and crores. A **lakh** is one hundred thousand (written out as 100 000) and a **crore** is one hundred lakh or ten millions (written out as 1 00 00 000). Consequently according to the exchange value of the rupee a lakh of rupees (Rs 1 00 000) may be read as the equivalent of £10 000 before 1873 and as the equivalent of (about) £8 687 after 1899, while a crore of rupees (Rs 1 00 00 000) may similarly be read as the equivalent of £1 000 000 before 1873 and as the equivalent of (about) £868 687 after 1899.

Coinage.—Finally it should be mentioned that the rupee is divided into 16 annas a fraction commonly used for many purposes by both Natives and Europeans. The anna was formerly reckoned as 1/16 it may now be considered as exactly corresponding to 1/11. The anna is again subdivided into 12 pies.

Weights.—The various systems of weight used in India combine uniformity of scale with immense variations in the weight of units. The scale used generally throughout Northern India, and less commonly in Madras

and Bombay may be thus expressed one maund 40 seers one seer—16 chittaks or 80 tolas. The actual weight of a seer varies greatly from District to District, and even from village to village but in the standard system the tola is 180 grains Troy (the exact weight of the rupee) and the seer thus weighs 2 0 7 lb and the maund 82 1/2 lb. The standard is used in official reports.

Retail.—For calculating retail prices the universal custom in India is to express them in terms of annas to the rupee. Thus, when prices change what varies is not the amount of money to be paid for the same quantity but the quantity to be obtained for the same amount of money. In other words prices in India are quantity prices not money prices. When the figure of quantity goes up this of course means that the price has gone down which is at first sight perplexing to an English reader. It may however be mentioned that quantity prices are not altogether unknown in England especially at small shops where pennyworths of many groceries can be bought. Eggs likewise are commonly sold at a varying number for the shilling. If it be desired to convert quantity prices from Indian into English denominations without having recourse to money prices (which would often be misleading) the following scale may be adopted—based upon the assumption that a seer is exactly 2 lb and that the value of the rupee remains constant at 1s 4d 1 seer per rupee=(about) 3 lb for 2s 2 seers per rupee=(about) 6 lb for 2s and so on.

The name of the unit for square measurement in India generally is the *bigha* which varies widely in different parts of the country. But areas have been expressed in this work either in square miles or in acres.

Proposed reforms.—Indian weights and measures have never been settled upon an organised basis suitable for commerce and trade characteristic of the modern age. They vary from town to town and village to village in a way that could only work satisfactorily so long as the dealings of towns and villages were self-contained and before roads and railways opened up trade between one and the other. It is pointed out that in England a bushel of wine contains 48 gallons and a hoghead of beer only 54 gallons, that a bushel of corn weighs 48 lbs in Sunderland and 240 lbs in Cornwall, that the English stone weight represents 14 lbs in popular estimation but only 5 lbs if we are weighing glass and might for meat but 6 lbs for cheese. Similar instances are multiplied in India by at least as many times as India is bigger than England. If we take for instance, the maund denomination of weight common all over India we shall find that in a given city there are nearly as many maunds as there are articles to weigh. If we consider the maund as between district and district the state of affairs is worse. Thus in the United Provinces alone the maund of sugar weighs 48 seers in Cawnpore 49 in Mottah, 72½ in Gorakhpur 49 in Agra 50 in Moradabad 4½ in Saharanpur 50 in Bareilly 48 in Fyzabad 54 in Shahjehanpur 51 in Goshanpura. The maund

varies throughout all India from the Bengal or railway maund of 82 2/7 lbs to the Bombay maund of 74 lbs 10 oz 11 drs the Bombay maund of 28 lbs, which apparently answers to the Forest Department maund in use at the Forest Depot, and the Madras maund which some authorities estimate at 20 lbs and others at 24 lbs and so on.

Committees of Inquiry—These are merely typical instances which are multiplied indefinitely. There are variations of every detail of weights and measures in every part of India. The losses to trade arising from the confusion and the trouble which this state of things causes are heavy. Municipal and commercial bodies are continually returning to the problem with a view to devising a practical scheme of reform. The Supreme and Provincial Governments have made various attempts during 40 years past to solve the problem of universal units of weights and measures and commerce and trade have agitated about the question for the past century. The Indian railways and Government departments adopted a standard tola (180 grains) seer (80 tolas) and maund (40 seers) and it was hoped that this would act as a successful lead which would gradually be followed by trade throughout the empire, but the expectation has not been realised.

The Government of India considered the whole question in consultation with the provincial Governments in 1890-1894 and various special steps have at different times been taken in different parts of India. The Government of Bombay appointed a committee in 1911 to make proposals for reform for the Bombay Presidency. Their final report has not been published but they presented in 1912 an *ad interim* report which has been issued for public discussion. In brief it points out the practical impossibility of proceeding by compulsory measures affecting the whole of India. The Committee stated that over the greater part of the Bombay Presidency a standard of weights and measures would be heartily welcome by the people. They thought that legislation compulsorily applied over large areas subject to many diverse conditions of trade and social life would not result in bringing about the desired reform so successfully as a lead supplied by local legislation based on practical experience. The want of coherence among *seers*, *talas* or the means of co-operation among the people at large pointed to this conclusion. The Committee pointed out that a good example of the results that will follow a good lead is apparent in the East Khandesh District of the Presidency where the District Officer Mr. Simcox gradually during the course of three years, induced the people to adopt throughout the district uniform weights and measures the unit of weight in this case being a tola of 180 grains. But the committee abstained from recommending that the same weights and measures should be adopted over the whole Presidency preferring that a new system started in any area should be as nearly as possible similar to the best system already prevailing there.

Proposals from England—Suggestions have been made by the British Weights and

Measures Association and the Decimal Association respectively at different times that British weights and measures and the decimal system should be introduced. Both proposals fail to meet the special requirements set forth by the Bombay Committee. Variations of them which have been put forward by different bodies in India in recent years are that the English pound weight and the English hundred weight should be adopted as the unit of weight for all India. The argument in favour of the importation of an outside unit in this manner is that people in India will always associate with a given familiar denomination of weight or measure the value they have been accustomed to consider in regard to it but that if a new weight were introduced they would learn to use it in dealing with their neighbours without the interference of anything resembling prejudice at what they might regard as an attempt to tamper with their old traditional standards of dealing.

Committee of 1913—The whole problem was again brought under special consideration by the Government of India in October 1913 when the following committee was appointed to inquire into the entire subject anew—

Mr C. A. Silberrad (*President*)
Mr A. Y. G. Campbell
Mr Rustomji Fardoonji

This Committee reported in August 1916 in favour of a uniform system of weight to be adopted in India based on the 180 grain tola. The report says,—"Of all such systems there is no doubt that the most wide-spread and best known is that known as the Bengal or Indian Railway weights. The introduction of this system involves a more or less considerable change of system in parts of the United Provinces (Gorakhpur, Banilly and neighbouring areas) practically the whole of Madras (parts of the Punjab (rural portions of Amritsar and neighbouring districts) of Bombay (South Bombay, Bombay city and Gujarat) and the North West Frontier Province. Burma has at present a separate system of its own which the committee think it would be permitted to retain. The systems recommended are

FOR INDIA

5 khaakhs	= 1 chawal
8 chawals	= 1 ratt
8 rattis	= 1 ma-ha
12 ma-hes or 4 tanks	= 1 tola
5 tolas	= 1 chatak
16 chataks	= 1 seer
40 seers	= 1 maund

FOR BURMA

2 small ywars	= 1 large ywar
4 large ywars	= 1 pe
2 pes	= 1 mu
5 pes or 24 mus	= 1 gamu
1 mat	= 1 tical
2 gamus	= 1 polkha or vice
100 ticals	

The tola is the tola of 180 grains equal to the rupee weight. The *vice* has recently been fixed at 60 lbs or 140 tolas.

The recommendations of the Commission met with general approval and have been referred to the Provincial Governments for their consideration.

Legislation and Inspection

The conditions of factory labour until 1918 were regulated by the Indian Factories Act of 1881, as amended in 1891. The chief provisions of the amended Act were Local Governments were empowered to appoint inspectors of factories and certifying surgeons to certify as to the age of children. A mid-day stoppage of work was prescribed in all factories except those worked on an approved system of shifts, and Sunday labour was prohibited subject to certain exceptions. The hours of employment for women were limited to 11 with intervals of rest amounting to at least an hour and a half; their employment between 8 p.m. and 5 a.m. was prohibited as a general rule except in factories worked by shifts. The hours of work for children (defined as persons below the age of 14) were limited to seven and their employment at night time was forbidden; children below the age of nine were not to be employed. Provision was made for the fencing of machinery, and for the promulgation of rules as to water supply, ventilation, the prevention of over-crowding, etc.

Act of 1911

The decision to undertake further legislation was arrived at after comprehensive inquiries. An important factor in the case was the increasing use of electric light in the Bombay Mills which radically changed the conditions prevailing when the Act of 1891 was passed and had abolished the security that operatives would not be employed for more than 12 hours a day on the average. The question of the hours of employment in textile factories was brought into prominence by the period of prosperity that the cotton industry began to enjoy in the cold weather of 1904-05; a large number of persons operatives being regularly worked for 15 hours a day or even longer.

Owing to complaints regarding the long hours worked in many mills the Government of India in 1906 appointed a small Committee with Commander Sir H. P. Freer-Smith K.C., late Superintending Inspector for Dangerous Trades in England as chairman to conduct a preliminary inquiry into the conditions of labour in textile factories. The Committee recommended that the working hours of adult males should be limited to 12 hours a day; that certificates of age and physical fitness should be required prior to half-time employment and prior to employment as an adult; that night work of women should be prohibited; and that whole-time Medical Inspectors should be appointed.

The conclusions of this Committee formed the basis of an investigation extending to all factories in India, by a representative Commission. This report disclosed the existence of abuses particularly in connection with the employment of children and the excessive hours worked by operatives generally in textile factories. The majority of the Commission deprecated a statutory limitation of the working hours of male adults. But they recommended the formation of a class of young persons between 14 and 17 years of age, whose hours should be limited to 12 and con-

sidered that this would indirectly secure a 12 hours day for male adults. They also recommended that the hours of work for children should be reduced from 7 to 6 hours and that the hours for women should be assimilated to those for young persons; night work being prohibited for both classes. They recommended that children should be certified as to age and physical fitness.

Hours fixed

The recommendations of the Committee and of the Commission having been considered by the Government of India and the Local Governments, a Bill was introduced in July 1908 to amend and consolidate the law relating to factories, and was finally passed into law as Act XII of 1911.

The new Act extended the definition of factory so as to include seasonal factories working for less than four months in the year, shortened the hours within which children (and as a general rule women) may be employed, and further restricted the employment of women by night by allowing it only in the case of cotton spinning and pressing factories. It also contained a number of new provisions for securing the health and safety of the operatives making inspection more effective, and securing generally the better administration of the Act. The most important feature of the Act however, was the introduction of a number of special provisions applicable only to textile factories. The report of the Factory Commission showed that excessive hours were not worked except in textile factories. The Act for the first time applied a statutory restriction to the hours of employment of adult males by laying down that subject to certain exceptions no person shall be employed in any textile factory for more than twelve hours in any one day. It is also provided in the case of textile factories that no child may be employed for more than six hours in any one day and that (subject to certain exceptions among which are factories worked in accordance with an approved system of shifts) no person may be employed before 5-40 a.m. or after 7 p.m. (the new limits laid down generally for the employment of women and children). Corresponding limitations are placed on the period for which mechanical or electrical power may be used.

Factory Inspection

The inquiries of the Factory Commission showed that the then existing system of factory inspection had not sufficed to prevent widespread evasion of the provisions of the factory law. This result was attributed to the fact that the number of full-time factory inspectors was very small, the work of inspection being to a large extent in the hands of ex-officio inspectors (District Magistrates, Civil Surgeons, etc.) who as the Commission reported had neither the time nor the special knowledge necessary for the work. In Bombay Presidency where there were three special inspectors it was reported that the Act was on the whole, well enforced. Steps have been taken since to reorganise the staff of whole-time inspectors of factories in India and to

increase to a strength sufficient to cope with the work of inspecting all the factories in India. The total strength of the staff is now 14, as compared with 8 at the time of the Factory Commission's report. Each of the larger provinces has at least one inspector Bombay having five. Except that in a few cases these officers have duties also in connection with

boiler inspection, their whole time is given to factory inspection. The District Magistrate remains an inspector ex-officio under the new Act and other officers may be appointed additional inspectors, but it is contemplated that inspection by ex-officio inspectors will be to a large extent discontinued or limited to special cases.

FACTORIES INSPECTED UNDER THE FACTORY ACT

PROVINCE	Number of Factories working and liable to be inspected	Average Number of Hands employed daily	Number of Persons convicted for breach of Act	Number of Accidents Reported			
				Fatal	Serious	Minor	Total
Bengal	322	320,081	7	54	512	547	1,111
Bihar and Orissa	26	23,722		1	38	83	122
United Provinces	201	51,807	14	9	108	170	287
Punjab	208	32,865	4	7	01	198	264
North West Frontier Province	4	241					
Burma	438	50,723	1	13	150	186	349
Central Provinces and Berar	475	4,280	59	5	57	140	172
Madras	268	65,181	3	2	14	449	466
Bombay	667	259,845	16	30	85	1,176	1,591
Assam	16	2,901			2	2	4
Ajmer Merwara	9	11,936		1	11	125	137
TOTAL IN 1912	2,654	869,648	104	122	1,010	3,367	4,508

Life Insurance

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There are no publications from which a complete statistical survey of the various branches of insurance work in India can be obtained but the official Statements of Accounts and Abstracts of Actuarial Reports in respect of 70 Life Assurance Companies doing business in British India, published by the Government of India, give much information in regard to Life Assurance Companies subject to all the provisions of the Indian Life Assurance Companies Act, 1912, and some of those which are partially exempt from the Indian Act on the ground that they carry on business in the United Kingdom and comply with the provisions of the British Assurance Companies Act of 1909. It should be noticed that the various pension funds connected with Government services are exempt from the compliance with the Indian Act.

The oldest of the Indian Companies were established in Madras about 80 years ago. Bombay has none older than the Bombay Mutual, the Oriental and the Bombay Widows Pension Fund which were established about 40 years ago. Life Assurance seems not to have been started in Bengal until much later and it was not until 1906 that many Companies were established either in that Presidency or elsewhere in India.

In his introductory note to the official publication already mentioned Mr. H. G. W. Meek, Actuary to the Government of India, states that the total amount of the investments and other realisable assets of Indian Companies is worth nearly 64 crores of rupees, more than two-thirds of this, however, represent the investments of one Company, namely the Oriental of Bombay.

During the period to which the accounts now published relate ordinary Life Assurance policies for nearly 8½ crores of rupees were issued by Indian Life Assurance Companies and the total sum assured under policies remaining in force at the end of the period was about 22½ crores of rupees. Over three quarters of this sum was under Endowment Assurance policies which provide for payment of the sum assured at the end of a stipulated period or at the death of the Life Assured if it occur previously—thereby making provision against old age as well as against early death. A comparison of the figures with those of the previous year so far as they are available, indicates a considerable increase both in the amount of insurances granted each year as well as in the total sum assured remaining in force at the end of the period.

In addition to the above mentioned sums a considerable number of Life Assurance Policies of the **dividing society** type were issued. Life Assurance business of this nature where the sum assured is not fixed but depends on the division of a portion of each year's premium income amongst the claims in that period either equally or in proportion to the total of such premiums paid under each is unsound. But it is hoped that the information to be published in the future will convince all those interested of the undesirability of continuing to issue such policies. 23 Indian Companies are known to transact other business in addition to Life Assurance. Mr. Meek in his report points out various defects in the accounts of Indian Companies, and gives various explanations and suggestions in connection with the proper keeping of accounts.

The following is the list of British, Colonial and Foreign Companies doing business both in the United Kingdom and in India partially exempted from the Indian Act and the classes of business in addition to Life Assurance transacted by them—

Name of Company	Place of Head Office	Life Assurance	Amounts re- tained (Capital re- demption etc.)	Fire	Marine	Personal Acci- dent and Sick- ness	Employers' Liability	Burglary and Fidelity Guar- antee etc.
1. Alliance	London	a	a	b	M	L	F	G
2. Atlas	London	a	a			L	F	G
3. Commercial Union	London	a	a	L	M	P	L	G
4. Cornhill	London	a	a					
5. Law Union and Rock	London	a	a	L		P	F	G
6. Liverpool and London and Globe	Liverpool	a	a	L	M	P	L	G
7. National Mutual	London	a	a					
8. North British and Mercantile	Edinburgh	a	C	F		P	L	G
9. Northern	Aberdeen	a	a					
10. Norwich Union	Norwich	a	a			P	L	G
11. Phoenix	London	a	C	L	M	P	L	G
12. Royal	Liverpool	a	C	L	M	P	L	G
13. Royal Exchange	London	a	a	L	M	P	L	G
14. Scottish Union and National	Edinburgh	a	a	L		P	L	G
15. Standard	Edinburgh	a	C					
16. Manufacturers	Canada	a				P		
17. Sun of Canada	Canada	a	a					
18. National Mutual of Australasia	Australia	a						
19. New York	United States	a						
20. China Mutual	Shanghai	a						

In the following list the names of the existing Indian Life Assurance Companies have been arranged according to the date of establishment under the Province in which they were established.

Year	Madras	Bombay	Bengal	Imphal	United Provinces, Assam, Ajmer & Merwara
1829	Madras Equitable (established under Section 41 of the Act)				
1833	Madras Widows				
1847					
1848	Tinianity Widows Fund			Christian Mutual	
1871		Bombay Mutual			
1874		Oriental			
1876		Bombay Widows			
1883		Guinness Mutual			
1886					
1887					
1888	Mangalore Roman Catholic	J. B. & C. I. Zoroastrian			
1889		Bombay Zoroastrian			
1890					
1891			Hindu Provident Fund		
1892	Gujarat Zoroastrian				
1893	Indian Life				
1894					Indian Empire Branch of Reclables (United Provinces)
1895					

In the following list the names of the existing Indian Life Assurance Companies have been arranged according to the date of establishment under the Province in which they were established --

Years	Madras	Bombay	Bengal	Punjab	United Provinces Assam, Ajmer Marwar.
1886		Empire of India		Barat	
1897					
1898					
1899					
1900					
1901					
1902					
1903					
1904					
1905					
1906	Coromandel United India	All India United	North in Circles	Mutual H P	
1907			National Indian National Insurance	Co Operative	
1908			Hindustan Co Operative	National Insurance and Bank.	
1909	Bombay Life		Eastern India Equitable	Hindustan (Gajrawala)	(General (Ajmer Marwar)
1910			Chittagong	Popular	Arnya (Assam)
1911	Asya Commercial		Bengal Provident		
1912			Star of India Universal		
1913	Industrial & Providential Western India East and West		Unique Victoria		
1914			Light of Asia Provincial	British Indian	

Chambers of Commerce.

Modern commerce in India was built up by merchants from the west and was for a long time entirely in their hands. Chambers of Commerce and numerous kindred associations were formed by them for its protection and assistance. But Indians have in recent years, taken a large and growing part in this commercial life. The extent of their participation varies greatly in different parts of India, according to the natural proclivities and genius of different races. Bombay for instance has led the way in the industrial and commercial regeneration of the new India, while Bengal, very active in other fields of activity lags behind in this one arising from these circumstances we find Chambers of Commerce in Bombay, Karachi, Calcutta, Madras and other important centres. With a membership both European and Indian but alongside these have sprung up in recent years certain Associations such as the Bombay Indian Merchants Chamber and Bureau, of which the membership is exclusively Indian. These different classes of bodies are in no sense hostile to one another and constantly work in association.

The London Chamber of Commerce in 1912 realising the increasing attention demanded by the economic development of India took steps to form an East India Section of their organization. The Indian Chambers work harmoniously with this body but are in no sense affiliated to it nor is there at present any inclination on their part to enter into such close relationship because it is generally felt that the Indian Chambers can themselves achieve their objects better and more effectively than a London body could do for them, and on various occasions the London Chamber or the East India Section of it have shown themselves out of touch with what seemed locally to be immediate requirements in particular matters.

A new movement was started in 1913 by the Hon. Sir Fazlulbhoj Gurnibhoy Ibrahim, a leading millowner and public citizen of Bombay which promises to lead to great improvement in strengthening Indian commercial organization. Sir Fazlulbhoj's original plan was for the formation of an Indian Commercial Congress. The proposal met with approval in all parts of India. The scheme was delayed by the outbreak of war but was carried further last year when it was decided to call a first session of the Congress for the 1915 Christmas holiday season in Bombay. The list of members of the Reception Committee showed that all the important commercial associations of Bombay were prepared to co-operate actively and it was announced that the Congress would have presented to it a scheme for an Associated Chamber of Commerce for the whole of India—a Chamber of Indian Chambers of Commerce. The Commercial Congress will be then a sort of an annual meeting of this Chamber dealing with all the commercial problems from the general point of view. Different Chambers will be asked to bring forward their local questions and the Associated Chamber will consider them provided members representing other Chambers approve of them.

The following are the principal paragraphs of a Memorandum of Association of the Asso-

ciated Indian Chamber of Commerce which was prepared for submission to the Congress—

I. The name of the Chamber will be THE ASSOCIATED INDIAN CHAMBER OF COMMERCE.

II. The Registered Office of the Chamber will be in Bombay.

III. The objects for which the Chamber is established are—

(a) To discuss and consider questions concerning and affecting trade, commerce, manufactures and the shipping interests at meeting of delegates from Indian Chambers of Commerce and Commercial Associations or Bodies and to collect and disseminate information from time to time on matters affecting the common interests of such Chambers or Associations or Bodies and the commercial manufacturing and shipping interests of the country.

(b) To communicate the opinions of the Chambers of Commerce and other Commercial Associations or Bodies separately or unitedly to the Government or to the various departments thereof by letter, memorial, deputation or other means.

(c) To petition Parliament or the Government of India or any Local Government or authority on any matter affecting trade, commerce, manufactures or shipping.

(d) To prepare and promote in Parliament or in the Legislative Councils of India, British Imperial and Provincial Bills, in the interest of trade, commerce, manufactures and shipping of the country and to oppose measures which in the opinion of the Chamber are likely to be injurious to those interests.

(e) To attain those advantages by united action which each Chamber or Association or body may not be able to accomplish in its separate capacity.

(f) To have power to establish an office either in England or in any part of British India with an Agent there in order to secure to the various Chambers early and reliable information on matters affecting their interests and to facilitate communication between the Chamber or individual chambers and the Government or other public bodies and generally to conduct and carry on the affairs of the Chamber.

(g) To organise Chambers of Commerce, Commercial Associations or Bodies in different trade centres of the country.

(h) To convene when necessary the Indian Commercial Congress at such places and at such times as may be determined by a Resolution of the Chamber.

(i) To do all such other things as may be incidental or conducive to the above objects.

The draft Articles of Association provide for the management of the Chamber by an Executive Council composed of a President, Vice-President, and ten other members elected at the annual meeting of the Associated Chamber the Executive Council to present a report and

statement of accounts at each annual meeting. The Articles declare the number of members of the Associated Chamber not to exceed one hundred and the Executive Council are given power to elect honorary members. There shall be an annual meeting of the Associated Indian Chamber held at Bombay on a date to be fixed by the Executive Council in the month of

February " or at some other time and semi-annual or special meetings may be convened by the Executive Council or on the regulation of one-third of the total number of members addressed to the Secretary.

The following are details of the principal Chambers of Commerce and kindred bodies in India at the present time —

BENGAL.

The Bengal Chamber of Commerce was founded in 1884. Its head-quarters are in Calcutta. Other societies connected with the trade and commerce of the city are the Royal Exchange, the Bengal Bonded Warehouse Association, the Calcutta Trades Association and the Bengal National Chamber of Commerce. The Bengal Chamber is registered with a declaration of membership of 200. Its objects are the usual purposes connected with the protection of trade in particular in Calcutta. There are two classes of members: Permanent and Honorary.

Merchants, bankers, shipowners, representatives of commercial railway and insurance companies, brokers, persons and firms engaged in commerce, agriculture, mining or manufacture and joint stock companies or other corporations formed for any purpose or object connected with commerce, agriculture, mining or manufacture and persons engaged in or connected with art, science or literature may be elected as permanent members of the Chamber.

A candidate for election as a permanent member whether an individual, a firm or a joint stock company or other corporation must be proposed by one and seconded by another permanent member and may be elected provisionally by the Committee but that election is subject to confirmation at the next annual general meeting. The subscription to the funds of the Chamber of permanent members residing or carrying on business in Calcutta is Rs 20 per annum and that of permanent members residing or carrying on business elsewhere than in Calcutta Rs 32 per annum. No entrance fee is charged. Honorary members are not required to subscribe to the funds of the Chamber. Officials and others indirectly connected with the trade, commerce or manufactures of Bengal, or who may have rendered distinguished service to the interests represented by the Chamber may be elected honorary members by the Committee upon the proposal of any two permanent members whether members of the Committee or not. Strangers visiting the Presidency may be admitted by the Committee as honorary members for a period not exceeding two months on the proposal of any permanent member whether a member of the Committee or not. Honorary members are entitled to receive the last published report of the Committee and to attend and speak but not to vote at any general meeting held during their membership and may upon the invitation of the President, Vice-President or Chairman as the case may be attend under the like conditions any meeting of Committee or of any departmental committee or sub-committee.

The affairs of the Chamber are conducted by the following officers, namely: a President, Vice-President, seven ordinary members of Committee, a Secretary and two Assistant Secre-

aries and an Auditor. The Officers of the Chamber with the exception of the Secretary, Assistant Secretaries and Auditor act without remuneration. The following are the President and his Committee appointed for the year 1915-1916 —

President—Hon. Mr. T. H. Stewart C.I.E. (Cladstone Wyllie & Co.)

Vice-President—Hon. Mr. E. H. Bray (Gillanders, Arbuthnot & Co.)

Committee—Messrs. A. A. Vlasto (Ball Bros.), W. E. Crum (Graham & Co.), H. Harris (Chartered Bank of India, Australia and China), D. Carmichael (MacKinnon MacKenzie & Co.), W. Ross Smith (Bird & Co.), F. A. B. Bell (Eastern Bengal State Railway) and H. V. Mansell (Jas. Finlay & Co. Ltd.)

The Secretary of the Chamber is Mr. H. M. Haywood, Asset Sales—Mr. D. K. Cunnison and Mr. A. O. Danil.

The following are the public bodies to which the Chamber has the right of returning representatives and the representatives returned for the current year.

Mayor's Legislative Council—The Hon. Mr. F. H. Stewart C.I.E.

Bengal Legislative Council—The Vice-President of the Chamber and the Hon. Mr. Archy Birkmyre.

Calcutta Port Commission—Messrs. A. A. Vlasto (Ball Bros.), W. E. Crum (Graham & Co.), D. Carmichael (MacKinnon MacKenzie & Co.), A. C. Paterson (Becker Gray & Co.), S. Fustace (Kilburn & Co.) Hon. Mr. F. H. Stewart C.I.E. (Cladstone Wyllie & Co.)

Calcutta Municipal Corporation—Messrs. A. C. Paterson (Becker Gray & Co.), T. R. Pratt, W. R. Rao (Sun Insurance Office) and Shurkey Treamearne (W. H. Targett & Co.)

Bengal Boiler Commission—Messrs. C. L. Thomson (Bangalore Jute Factory Co. Ltd.), G. F. Scott (Bengal Coal Co. Ltd.) and T. Wilson (Jesop & Co. Ltd.)

Board of Trustees of the Indian Museum—Mr. J. E. Lloyd (Shaw Wallace & Co.),

Bengal Smoke Nuisance Commission—Messrs. John Taylor (Burn & Co. Ltd.) and W. Lamond (Union Jute Co. Ltd.)

Calcutta Improvement Trust—Mr. W. K. Dods (Agent Hongkong and Shanghai Banking Corporation).

The Chamber elects representatives to various other bodies of less importance such as the committee of the Calcutta Ballroom House, and to numerous subsidiary associations. The following are the recognized associations of the Bengal Chamber of Commerce —

Calcutta Wharf and Seed Trade Association, Indian Jute Mills Association, Indian Tea Association, Calcutta Tea Traders Association, Calcutta Fire Insurance Agents Association, Calcutta Import Trade Association, Calcutta Marine Insurance Agents Association, The Wine Spirit and Beer Association of India, Indian Mining Association, Calcutta Baled Jute Association, Indian Paper Makers Association, Indian Engineering Association, Jute Fabric Shippers Association, Calcutta Hydraulic Press Association, Jute Fabric Brokers Association, Baled Jute Shippers Association, and European Jute Dealer Association.

The Chamber maintains a tribunal of arbitration for the determination, settlement and adjustment of disputes and differences relating to trade business, manufactures and to customs of trade between parties, all or any of whom reside or carry on business personally or by agent or otherwise in Calcutta, or elsewhere in India or Burmah by whomsoever of such parties the said disputes and differences be submitted. The Secretary of the Chamber acts as the Registrar of the Tribunal, which

consists of such members or assistants to members as may from time to time, annually or otherwise be selected by the Registrar and willing to serve on the Tribunal. The Registrar from time to time makes a list of such members and assistants.

The Chamber also maintains a Licensed Measurers Department controlled by a special committee. It includes a Superintendent (Mr. Jas. Knox), Deputy Superintendent (Mr. A. H. Lugg) and three Assistant Superintendents and the staff at the time of the last official returns consisted of 153 officers. The usual system of work for the benefit of the trade of the port is followed. The Department has its own provident fund and compassionate fund and Measurers Club. The Chamber does not assist in the preparation of official statistical returns. It publishes weekly the *Calcutta Price Current* and its Monthly Supplement and also publishes a large number of statistical circulars of various descriptions, in addition to a monthly abstract of proceedings and many other circulars on matters under discussion.

BOMBAY

The object and duties of the Bombay Chamber as set forth in their rules and regulations are to encourage a friendly feeling and unanimity among commercial men on all subjects involving their common good to promote and protect the general mercantile interests of this Presidency to collect and classify information on all matters of general commercial interest to obtain the removal as far as such a Society can, of all acknowledged grievances affecting merchants as a body or mercantile interests in general to receive and decide references on matters of usage and custom in dispute, recording such decisions for future guidance and by this and such other means as the Committee for the time being may think fit assisting to form a code of practice for simplifying and facilitating business to communicate with the public authorities with similar Associations in other places and with individuals on all subjects of general mercantile interests and to arbitrate between parties willing to refer to and abide by the judgment of the Chamber.

The Bombay Chamber was established in 1836 under the auspices of Sir Robert Grant who was then Governor of the Presidency and the programme described above was embodied in their first set of rules. There are now affiliated with the Chamber the Bombay Mill Owners Association, which exists to carry out the same general objects as the Chamber in the special interests of millowners and users of steam and water power and the Bombay Cotton Trade Association which similarly exists for the special benefit of persons engaged in the cotton trade. According to the latest returns the number of members of the Chamber is 122. Of these 16 represent banking institutions, 7 shipping agencies and companies, 3 firms of solicitors, 3 railway companies, 3 insurance companies, 6 engineers and contractors, 84 firms engaged in general mercantile business.

All persons engaged or interested in mercantile pursuits desirous of joining the Chamber and disposed to aid in carrying its objects into effect are eligible to election to membership by ballot. The members subscription is Rs. 15 per month and an additional charge of Rs. 200 per annum is made to firms as subscription to the trade returns published by the Chamber. Gentlemen distinguished for public services or eminent in commerce and manufactures may be elected honorary members and as such are exempt from paying subscriptions. Any stranger engaged or interested in mercantile pursuits and visiting the Presidency may be introduced as a visitor by any Member of the Chamber inserting his name in a book to be kept for the purpose but a residence of two months shall subject him to the rule for the admission of members.

Officers of the Year

The affairs and funds of the Chamber are managed by a committee of nine ordinary members consisting of the chairman and deputy-chairman and seven members. The committee must as a rule meet at least once a week and the minutes of its proceedings are open to inspection by all members of the Chamber subject to such regulations as the committee may make in regard to the matter. A general meeting of the Chamber must be held once a year and ten or more members may requisition through the officers of the Chamber, a special meeting at any time for a specific purpose.

The Chamber elects representatives as follows to various public bodies—

Legislative Council of the Governor-General one representative. The Chamber may elect anyone but in practice they have hitherto returned their chairman.

Legislative Council of the Governor of Bombay one representative who may also be anyone but in practice always the deputy chairman.

Bombay Municipal Corporation, two members, elected for three years

Board of Trustees for the Improvement of the City of Bombay one member elected for two years

Board of Trustees of the Port of Bombay five members two and three being elected in alternate years

Representatives on the Legislative Councils become ex-officio members of the committee of the Chamber during their terms of office, if they are not already members

The following are the officers of the Chamber for the year 1913-14 and their representatives on the various public bodies —

Chairman The Hon. Mr. T. W. Birkitt (Killick Nixon & Co.)

Deputy Chairman The Hon. Mr. Malcolm N. Hoag (Forbes, Forbes, Campbell & Co. Ltd.)

Committee Members R. H. Brooke (Bombay Co. Ltd.) A. H. Froom (P. & O. S. N. Co.) Major H. A. L. Hepper R. E. (G. L. P. Ry.) Ralph Kidd (National Bank of India, Ltd.) Nigel F. Paton (W. & A. Graham & Co.) W. M. Ross (Fawcett Latham & Co.) G. D. Xydias (Hall Bros.)

Secretary Mr. R. E. Greger Pearce

Assistant Secretary Mr. Noel Wilkinson B.A.

Representatives on—

Viceroy's Legislative Council The Chairman

Bombay Legislative Council The Deputy Chairman

Bombay Municipality Messrs J. S. Wardlaw Milne (Turner, Morrison & Co.) and D. M. Inglis

Bombay Improvement Trust Major H. A. L. Hepper R. E.

Bombay Port Trust The Chairman Mr. Nigel F. Paton Mr. A. H. Froom Mr. W. M. A. Housstoun and Mr. G. F. Xydias

Advisory Board of Sydenham College of Commerce and Economics Messrs W. A. Haig Brown and J. S. Warden Milne

Bombay Smoke Abatement Commission The Hon. Mr. Malcolm N. Hoag

St. George's Hospital Advisory Committee Dr. Stanley Reed, LL.D.

Special Work.

One of the most important functions performed by the Chamber is that of arbitration in commercial disputes. Rules for this have been in existence for many years and have worked most satisfactorily. The decisions are in all cases given by competent arbitrators appointed by the General Committee of the Chamber and the system avoids the great expense of resort to the Law Courts.

A special department of the Bombay Chamber is its Statistical Department which prepares a large amount of statistical returns connected with the trade of the port and of great importance to the conduct of commerce. The department consists of eleven Indian clerks who by the authority of Government

work in the Customs House and have every facility placed at their disposal by the Customs authorities. They compile all the statistical information in connection with the trade of the port in both export and import divisions, which it is desirable to record. No other Chamber in India does similar work.

The Bombay Chamber publishes a Daily Arrival Return which shows the receipts into Bombay of cotton, wheat and seeds and a Daily Trade Return which deals with trade by sea and shows in great detail imports of various kinds of merchandise and of treasure while the same return contains particulars of the movements of merchant vessels.

The Chamber publishes twice a week detailed reports known as Import and Export manifests, which give particulars of the cargo carried by each steamer to and from Bombay.

Three statements are issued once a month. One shows the quantity of exports of cotton seeds and wheat from the principal ports of the whole of India. The second gives in detail imports from Europe, more particularly in regard to grey cloths, bleached cloths, Turkey red and scarlet cloths, printed and dyed goods, fancy cloth of various descriptions, woollens, yarns, metals, kerosene oil, coal, aniline dyes, sugar, matches, wines and other sundry goods. The third statement is headed 'Movements of Piece Goods and Yarn by Rail' and shows the despatches of imported and local manufactured piece goods and yarn from Bombay to other centres of trade served by the railways.

The Weekly Return issued by the Chamber shows clearances of a large number of important descriptions of merchandise. A return of Current Quotations is issued once a week on the day of the departure of the English mail and shows the rates of exchange for Bank and Mercantile Bills on England and Paris and a large quantity of general banking and trade information.

The annual reports of the Chamber are substantial tomes in which the whole of the affairs of the Chamber and the trade of the port during the past year are reviewed.

The Chamber has also a Measurement Department with a staff of twelve whose business is that of actual measurement of exports in the docks before loading in steamers. Certificates are issued by these officers with the authority of the Chamber to shippers and ship agents as to the measurement of cotton and other goods in bales or packages. The measurements are in attendance on the quays whenever there are goods to be measured and during the busy season are on duty early and late. The certificates granted show the following details —

- (a) the date, hour and place of measurement
- (b) the name of the shipper
- (c) the name of the vessel
- (d) the port of destination
- (e) the number and description of packages
- (f) the marks
- (g) the measurement and, in the case of goods shipped by boats
- (h) the registered number of the boat,
- (i) the name of the tidal

Bombay Millowners Association

The Bombay Millowners Association was established in 1875 and its objects are as follows—

- The protection of the interests of millowners and users of steam water and/or electric power in India
- The promotion of good relations between the persons and bodies using such power
- The doing of all those acts and things by which these objects may be furthered

Any individual partnership or company owning one or more mill or one or more presses or one or more ginning or other factory or factories actuated by steam, water electric or other power is eligible for membership members being elected by ballot. Every member is entitled to one vote for each mill which is—

- owned by such member
- subscribed to according to the rules of the Association by such member and
- worked by motive power separate and distinct from the motive power by which any other mill is worked

If two or more mills are owned by any one member but are worked by one motive power the member in question shall be entitled to one vote only in respect of the two mills

The membership of the Association in 1915 numbered 82.

The following is the Committee for 1915 —

Mr Jehangir B Petit (*Chairman*) Mr N B Baklatwalla (*Deputy Chairman*)
The Honble Sir Sassoon David Bart
Sir Dinshaw M Petit Bart The Honble Sir Jashubhai Currimbhoy Jt Sir Vithaldas D Thackersey Kt Mr I R Aldred the Honble Mr Minmohanda Ramji Mr J E Bradbury Mr B Brown Mr Rahimtoola Currimbhoy Ebrahim Mr Narotram M Gundlas Mr N G Hunt Mr Gopaljee Jhangir (Jun) Mr J H Latimer Mr C V Mehta Mr Meyer Nalim Mr Dinshaw E Wadia Mr C N Wadia Mr N N Wadia

Mr R. E. Gregor Pearce *Secretary*

Mr Noel-Wilkinson B A *Asst & Asst Secy*

The following are the Association's Representatives on public bodies —

Bombay Port Trust Sir Vithaldas D Thackersey Kt
City of Bombay Improvement Trust Sir Sassoon David, Bart
Victoria Jubilee Technical Institute Mr Jehangir Bomanjee Petit
Bombay Smokes Nuzumees Commission, Messrs J F Bradbury & W A Sutherland

Advisory Board of Sydenham College of Commerce and Economics Mr N N Wadia

Indian Merchants Chamber

The Bombay Indian Merchants Chamber and Bureau was established in 1907 with the following objects—To encourage a friendly feeling and unanimity among commercial men

on all subjects involving their common good to promote and protect the trade commerce and manufactures of India and in particular to promote the general commercial interests of the Presidency of Bombay to consider and deliberate on all questions affecting the rights of Indian Merchants to represent to the Government their grievances if any and to obtain by constitutional methods the removal of such grievances to collect and compile and distribute in such manner as may be most expedient for purposes of disseminating commercial and economic knowledge all statistics and other information relating to trade commerce and finance specially Indian as well as to form and maintain a library and generally to do all such matters as may promote the above objects in view to arbitrate between parties willing to refer to and abide by the judgment of the Chamber to receive and decide references of matters of usage and custom in dispute recording such decisions for future guidance and assisting by this and such other means as the committee for the time being may think fit, to form a code of practice so as to simplify and facilitate the transaction of business

The Chamber has not yet taken up the work of arbitration measurements etc

The following bodies are connected directly and indirectly with the Chamber though no public body is directly affiliated to it —

The Bombay Native Piece-goods Merchants Association (which sends a large number of representatives)

The Grain Merchants Association which is a member)

The Hindustani Native Merchants Association (which is a member)

The Bombay Commission Agents Association
The Bombay Shroff Association

The Chamber elects a representative jointly with the Bombay Native Piece-goods Merchants Association to the Bombay Legislative Council and a representative to the Board of Trustees for the Port of Bombay, whenever it is so notified by the Government (*vide Act No 1 of 1909*) The Chamber also has the right to elect a representative on the Board of the Sydenham College of Commerce and Economics Bombay

Any person engaged in mercantile pursuits or interested in trade and commerce desirous of joining the Chamber is eligible for membership there being two classes of members, etc. Ordinary and Honorary Ordinary members shall be (1) Resident members who pay Rs 80 annual fee and (2) Non-resident members who pay Rs 5 as annual fee An ordinary member also pays an entrance fee of Rs 50 on being elected.

Gentlemen distinguished for public services or eminent in commerce and manufactures or otherwise interested in the aims and objects of the Chamber may be elected as Honorary members by a General Meeting of the Chamber on the recommendation of the Committee and as such are exempted from paying subscriptions. They are not entitled to vote at any meeting of the Chamber nor are they eligible to serve on the Committee. They are, however supplied with all the publications of the Chamber free of charge

The following are the Officers of the Chamber for the year 1915-16 —

Chairman—Mr Dinshaw Edulji Wacha

Vice-Chairman—The Hon Mr Lalubhai Samaldas C.I.E.

Committee—The Hon Mr Manmohandas Ramji Mr Purshotamdas Thakurdas the Hon Sir Fazlulbhai Currimbhoy Ibrahim the Hon Sir Ibrahim Rahimtulla Sir Shapurji B. Broacha Mr D. Vidas Madhooji Thakerv Sir Vithaldas Damodar Thakerv Messrs Chaturbhuj Shetty Jagadhbhai Vallji Naranj Haribhai Ravashanker Jagjiwan Bhatt Dusey Mulji Gopalji Vallji Sunderji Motilal Kanji Motilal Vallabhai Patilraj Billimoria Nathuradas Vasant Khimji Sorsbji Edulji Warden Morari Vallji Currimbhaj Lalji Nagan Mulji Haridas 9 B. Billimoria, M. P. Madan Laxmichand Maneckchand Khokham (The Bombay Export Association), and Sheth Jagannathji Munim of Sheth Tarachand Juharnal (The Hindu Lani Native Merchants Association).

The following are the Chambers representative on various public bodies —

Bombay Legislative Council—The Hon Mr Manmohandas Ramji

Bombay Port Trust—The Hon Mr Manmohandas Ramji

Advisory Board of the Sydenham College of Commerce—Mr D. L. Wacha

Industrial Advisory Board of the Government of Bombay—The Hon Sir Fazlulbhai Currimbhoy and the Hon Mr Manmohandas Ramji

The staff of the Chamber include —

Secretary—Mr J. K. Mehta M.A.

Assistant Secretary—Mr M. M. Munshi B.A. Hon. Auditor—Mr Ardashir Edulji Cama C.A. (A.C. R.I. & Co.)

Solicitors—Messrs. Ldgrow Gulabchand, Wadia & Co.

The Chamber publishes every month a journal in Gujarati giving information on commercial and industrial subjects and publishing all statistics considered important relating to the trade and commerce of India.

Cotton Trade Association

The Bombay Cotton Trade Association was founded in 1878. The objects for which it was established were *inter alia* to adjust disputes between persons engaged in the cotton trade to establish just and equitable principles in the trade to maintain uniformity in rules regulations and usages in the trade to adopt standards of classification in the trade to acquire preserve and disseminate useful information connected with the cotton interests throughout all markets and generally to promote the cotton trade of the City of Bombay

and India and augment the facilities with which it may be conducted. The Association had in 1914 15 50 shareholders and 118 associate members. Its affairs are managed by a Board of Directors consisting of eight members, who are now as follow —

Chairman—Mr H. P. Greaves, (Greaves Cotton & Co.)

Deputy Chairman—Mr Osborne Marshall, (Drennan & Co.)

Members—Messrs J. L. Ainsworth, (Gill & Co.) G. Boyana (Ball Bros.) C. W. Brelvi, (Brelvi & Co.) H. F. Bush (Bombay & Co. Ltd.) J. A. Grant (Grant Dwarikadas & Co.) The Hon. Mr M. N. Hogg, (Forbes Forbes Campbell & Co.) and R. P. Scott (P. Ohrysal & Co.)

Secretary—Mr B. E. Gregor Pearce.

Native Piece-Goods Association

The objects of the Association are as follow —

(a) To promote by creating friendly feelings and unity amongst the Merchants, the business of the piece-goods trade in general at Bombay and to protect the interest thereof (b) to remove as far as it will be within the powers of the Association to do so all the trade difficulties of the piece goods business and to frame such line of conduct as will facilitate the trade (c) to collect and assort statistics relating to piece goods and to correspond with public bodies on matters affecting trade and which may be deemed advisable for the protection and advancement of objects of the Association (d) to hear and (e) to decide disputes that may be referred to for arbitration

The following are the office-bearers for the current year —

Chairman—The Hon Mr Manmohandas Ramji

Deputy Chairman—Mr Gopalji Vallji Sunderji Hon. Joint Secretaries—Messrs Purshotam Kunji and Vithaldas Damodar Govindji

Hon. Treasurer—Mr Mathurda Haridas

Grain Merchants Association

The object of this body is to promote the interests of the merchants and to put the grain and seeds trade on a sound footing. It is an influential body of large membership. The office holders for the current year are as follow —

Chairman—Mr Harji Mulji of Messrs Dharsu Naraji & Co.

Vice Chairman—Mr Vallji Lakhamsi & Co.

Hon. Secretary—Mr Shamji Shivji

Secretary—Mr Lalshanker Harprasad.

KARACHI

The object and duties of the Karachi Chamber are set forth in terms similar to those of Bombay. Qualifications for membership are also similar. Honorary membership is conferred upon any gentlemen interested in the affairs and objects of the Chamber subject to election by the majority of the votes of mem-

bers. All new members joining the Chamber pay Rs 100 entrance fee and the monthly subscriptions Rs 6 for any member contributing Rs 600 to the Chamber Fund, in addition to entrance fee and Rs 12 without such contribution. The subscription for the Chamber's periodical returns is Rs 5 per month. The affairs

of the Chamber are managed by a committee of ten members, consisting of a Chairman, Vice-Chairman and eight members elected at the annual meeting of the Chamber in January or immediately after. The Chamber elects a representative on the Bombay Legislative Council and three representatives on the Karachi Port Trust. There were last year 54 members of the Chamber and 7 Honorary Members.

The following are the officers of the Chamber for the current year —

Chairman—The Hon Mr M de P Webb O.B. (Forbes Forbes Campbell & Co.)

Vice-Chairman—J I Murray (Ewart Ryrie & Co.)

Managing Committee—Messrs H G Houghton (Donald Raham & Co.) J Lenz (Volkart Brothers) J N Metaxa (Ralli Bros) W U Nicholas (Anderson & Co.) H H Sawyer (David Sassoon & Co.) S J Stephen (National Bank of India Ltd) D B Trevor (N W Railway) and S C Woodward (Clements Robson & Co.)

Representative on the Bombay Legislative Council—The Hon Mr M de P Webb O.B.

Representative on the Karachi Port Trust—The Hon Mr M de P Webb, O.B. Mr James Kanyon, Mr J H Fyfe

Secretary—Mr E L Rogers

Public Treasurer—Captain S Mylariet

The following are the principal ways in which the Chamber gives a special assistance to members. The Committee take into consideration and give an opinion upon questions submitted by members regarding the custom of the trade of the Port of Karachi. The Committee undertake to nominate European surveyors for the settlements of disputes as to the quality or condition of merchandise as to the quality in which both parties desire the Chamber to do so. When two members of the Chamber or when one member and a party who is not a member have agreed to refer disputes to the arbitration of the Chamber or of an arbitrator or arbitrators nominated by the Chamber the Committee will undertake to nominate an arbitrator or arbitrators, under certain regulations. A public measurer is appointed under the authority of the Chamber to measure pressed bales of cotton wool hemp hides and other merchandise in Karachi.

MADRAS

The Madras Chamber of Commerce was founded in 1886. All merchants and other persons engaged or interested in the general trade, commerce and manufactures of Madras are eligible for membership. Any assistant signing a firm or signing *per pro* for a firm is eligible. Members who are absent from Madras but pay their subscriptions may be represented in the Chamber by their powers-of-attorney as honorary members subject to ballot. Honorary members thus elected are entitled to the full privilege of ordinary members. Election for membership is by ballot at a general meeting, a majority of two-thirds of the recorded votes being necessary to secure election. Every member pays an entrance fee of Rs 100 provided that banks, corporate bodies and mercantile firms may be represented on the Chamber by one or more members and are liable for an entrance fee of Rs. 100 once in ten years each. The subscription shall not exceed Rs 180 per annum payable quarterly in advance subject to reduction from time to time in accordance with the state of the Chamber's finances. Absentees in Europe pay no subscription and members temporarily absent from Madras pay one rupee per month. Honorary members are admissible to the Chamber on the usual conditions. Members becoming insolvent cease to be members but are eligible for re-election without payment of the entrance donation.

The Chamber undertakes arbitrations and surveys the granting of certificates of origin and the registration of trade marks. One of the rules for the last named is that no trade mark on ticket shall be registered on behalf of an Indian firm trading under a European name.

The following publications are issued by the Chamber—Madras Price Current and Market Report, Tonnage Schedule and Madras Landing Charges and Harbour Dues Schedule.

There are 40 members and five honorary members of the Chamber in the current year and the officers and committee for the year are as follows —

Chairman—Mr Gordon Fraser

Vice Chairman—The Hon Sir Hugh Fraser

Committee—Messrs J C Armstrong R. Greenall W B Hunter A J Lach and C B Simpson E.L.

Secretary—Mr A E Lawson C.I.E.

The following are bodies to which the Chamber are entitled to elect representatives and the representatives elected last year —

Madras Legislative Council—The Hon Sir Hugh Fraser

Madras Port Trust—The Hon Sir Hugh Fraser Messrs C B Simpson (Bumby & Co Ltd) Gordon Fraser (Best & Co Ltd) R Greenall (M A S M Railway) and J H Young (Madras Trade Association)

Madras Municipal Corporation—Messrs T W (Smith) (Wilson & Co) A T Leitch (F A Fayon & Co) and J L Simpson (Gordon Woodroffe & Co)

British Imperial Council of Commerce London—Mr A J York (in 1910)

Indian Trade Committee—Mr J C Armstrong (Perry & Co)

Southern India Chamber

The Southern India Chamber of Commerce has its Registered Office in Madras. The objects of the Chamber are those usual for such bodies, concerning the promotion of trade especially in the Madras Presidency and the interests of members. Special objects are stated to be —

"To maintain a Library of books and publications of commercial interest so as to diffuse commercial information and knowledge amongst its members

To establish Museums of commercial products or organise exhibitions, either on behalf of the Chamber or in co-operative with others

There are two classes of members permanent and honorary the usual conditions as to eligibility for election prevail

The Tuticorin Merchants Association is affiliated to the Chamber. The right of electing two representatives to the Madras Port Trust

was accorded to the Chamber by the Madras Port Trust Amendment Act 1915. Members of the Chamber hold seats in the Madras Legislative Council and in the Madras Corporation but the Chamber does not enjoy the right of electing representatives to these bodies

President—Rao Bahadur P. Theagaraya Chettiar B.A.

Honorary Secretaries—M R By P N Muthusami Naidu Garu B.A. and Moulana Abdus Subhan Sahib

Asst. Secretary—C Duraiswami Aiyangar, B.A.

UPPER INDIA CHAMBER.

The Upper India Chamber of Commerce is concerned with trade commerce and manufactures in the United Provinces and has its registered office at Cawnpore. Members are elected by the Committee subject to confirmation by the next general meeting of the Chamber. Honorary members are elected on the usual qualifications but can neither serve in the Committee nor vote at meetings of the Chamber. There is no entrance fee for membership but subscriptions are payable as follows—A firm, company or association having its place of business in Cawnpore, Rs. 200 a year. An individual member resident or carrying on business in Cawnpore Rs. 100. Firms or individuals having their places of business or residence outside Cawnpore pay half the above rates but the maintenance of a branch office in Cawnpore necessitates payment of full rates.

The affairs and funds of the Chamber are managed by a Committee of ten members which has power to constitute Local Committees, of from four to seven members each at trade centres where membership is sufficiently numerous to justify the step. Such Local

Committees have power to communicate only with the Central Committee.

The Chamber appoints arbitration Tribunal for the settlement and adjustment of disputes when invited to do so. Members of the Tribunal are being selected from a regular printed list of arbitrators.

The Chamber has in the present year 60 members, four honorary members and five affiliated members.

The following are the officers—

President—The Hon. Mr. J. P. Watson (Cooper Allen & Co. Ltd.)

Vice President—Mr. B. R. Briscoe (Elgin Mills Co. Ltd.)

Members—Messrs. K. M. Balfour (Allahabad Bank Ltd.), N. A. S. Bond (E. I. Ry.), C. O. Malley (Cawnpore Cotton Mill), T. D. Edleston (Messrs. Rutherford & Co.), T. Gavin Jones (Lampre Engineering Co.), A. W. Lilley (Cawnpore Woollen Mills), T. Smith (Muir Mills Co.), Babu Ram Narain (Ram Narain Budrida & Co.)

Secretary—Mr. J. G. Ryan

PUNJAB

The Punjab Chamber of Commerce has its headquarters at Delhi and exists for the care of mercantile interests on the usual lines in the Punjab, the North West Frontier Province and Kashmir. There are affiliated branches of the Chamber at Lahore, Amritsar and Rawalpindi. Members are elected by ballot the only necessary qualification being interest in mercantile pursuits. There is no entrance fee. The rate of subscription is Rs. 10 per month. The following are the Officers, Committee and Representatives on public bodies for the

current year—

President—Mr. T. C. Waller (Messrs. F. C. Waller & Co.)

Committee—Mr. C. Buckley Bax (The Punjab Banking Co. Ltd.), Mr. J. C. Roberts (Guthrie & Co.), Mr. N. A. S. Bond (East India Railway), Mr. Hon. Mr. James Currie (Messrs. James Currie & Co.), Mr. A. E. Gordon (National Bank of India, Ltd.), Mr. D. N. Bhargava (Kerr, Farrer & Co.)

Representative on Punjab Legislative Council—The Hon. Mr. James Currie

Secretary—Mr. J. Benton Denning F.R.S.A.

UNITED PROVINCES

A meeting of Indians engaged or interested in the trade and industry of the United Provinces was held at Cawnpore in February 1914, to inaugurate an Indian Chamber of Commerce for the United Provinces. Representatives of firms in Cawnpore, Benares, Allahabad, Lucknow, Fyzabad and other

places were present. It was unanimously resolved to establish a United Provinces Chamber of Commerce with its headquarters at Cawnpore. The Chamber has been registered under the Indian Companies Act and has been recognised by the Provincial Government.

The following are the office-holders of the Chamber, appointed in 1915 —

President—Raj Bahadur Lala Prayag Narain Bhargava (L. I. Couper Paper Mills Luck now)

Vice-Presidents—The Hon Lala Bishambhar Nath Bhatta Mahomed Halim and Lala Moolchand

Committee—Mr. Madan Mohan Khanna (Allahabad Bank), C. Y. Chintamani (Newspapers, Ltd. Allahabad) Mr. Alakdhar (Oudh Commercial Bank Ltd. Fyzabad) Babu B. Hari Lal (Sri Ganga Ootia Vile Mirzapore) Messrs. Dina Nath, Munna Lal, B. Hari Lal, Raj Bahadur Kashyap Lal and B. Ram Dopal Cawnpore

Secretary and Joint Secretary—B. Vikramjit Singh and Pandit Bishwa Nath Thola

BURMA.

The Burma Chamber of Commerce with headquarters at Rangoon exists to encourage friendly feeling and unanimity among commercial men on all subjects involving their common good to promote and protect trade commerce and manufactures and in particular the general mercantile interests of the province to communicate with public authorities, associations and individuals on all matters directly or indirectly affecting these interests and to provide for arbitration between parties willing to refer to and abide by the judgment of arbitrators appointed by the Chamber. The following are affiliated bodies —

Burma Fire Insurance Association
Burma Marine Insurance Agents Association

Rangoon Import Association

The Chamber elects representatives to the following Public Bodies —

Burma Legislative Council
Rangoon Port Trust Board
Rangoon Municipal Committee
Victoria Memorial Park Trustees,
Pastor Institute Committee
Burma Boiler Commission

All corporations, companies, firms or persons engaged or interested in its mercantile pursuits such as merchants, bankers, shipowners and brokers or who are connected with agriculture, mining, manufactures, insurance, railways, commerce, art, science or literature shall be eligible to become Members of the Chamber. The subscription is Rs. 20 per month. Official

and others indirectly connected with the trade of the province or who may have rendered distinguished service to the interests represented by the Chamber may be elected by the Committee either on their own motion or on the suggestion of two Members as Honorary Members of the Chamber. Honorary Members are not required to subscribe to the funds of the Chamber.

The Chamber undertakes arbitrations in addition to its ordinary work. It does not publish any statistical returns.

The following are the Officers, Committee and Representatives on public bodies for the current year —

Chairman—The Hon. Mr. A. W. Binning (Binning & Co.)

Vice-Chairman—Mr. E. O. Anderson (Rullock Bros. & Co. Ltd.)

Committee—Mr. W. Buchanan (Finlay Fleming & Co.) Messrs. B. F. U. Judd (Gillanders, Arthur & Co.) C. Guinness (Hongkong and Shanghai Banking Corp.) Ltd. E. J. Holbourn (Bombay Burma Trading Corp. Ltd.) H. B. Huddlestone (Burma Railway) M. Joskim (Bathurst & Son) J. A. Johnson (Irrawaddy Flotilla Co. Ltd.) and J. Scott (Steel Producers & Co. Ltd.)

Secretary—Mr. C. A. Cuttiss
Representative on the Burma Legislative Council—The Hon. Mr. A. W. Binning

Representatives on the Rangoon Port Trust Board—Messrs. D. Roberts and W. Buchanan
J. A. Pol on J. Scott

Representative on the Rangoon Municipal Committee—Mr. M. Joskim

COCANADA.

The following are the office holders of the Cocanada Chamber of Commerce which has its headquarters at Cocanada, the chief port on the Comorandel Coast, north of Madras —

Messrs. P. J. Rose (Bank of Madras)
Chairman, A. Gardiner and B. Eddington (Comorandel Co. Ltd.) E. H. McCrur (Wilson & Co.) A. E. Todd (Ramsden Bros.) M. B. By Rao Bahadur K. Suryanarayana Murthy Naidu Gurn and G. M. Lake (Innes & Co.) W. Macintosh (Shaw Wallace & Co.) E. J. Hunter (Ripley & Co.) and E. Flury (Volzart Bros.)

Secretary—Mr. J. A. Miller

The rules of the Chamber provide that by the term 'member' be understood a mercan-

tile firm or establishment or the permanent agency of a mercantile firm or establishment or a society of merchants carrying on business in Cocanada or other place in the District of Kistner, Godavari, Vizagapatnam and Ganjam, and duly electing according to the Rules of the Chamber and that all such be eligible but only members resident in Cocanada can hold office. Members are elected by ballot. The Committee when called upon by disputing members or non members of the Chamber give their decision upon all questions of mercantile usage and arbitrate upon any commercial matter referred to them for final judgment. In the former case a fee of Rs. 10 and in the latter a fee of Rs. 32 must accompany the reference. The Committee consist of 4 members including the Chairman and 2 supplementary members.

bers, the Chairman to be elected by ballot at the general meeting of January in each year for a term of 12 months and the Committee with 2 supplementary members at the general meetings of January and July in each year for the term of 6 months. The entrance fee for each member whose place of business is in Ceylon is Rs 50 and for each member whose place of business is elsewhere is Rs 25.

The subscription for each member whose place of business is in Ceylon is Rs 120 per annum and for each member whose place of business is elsewhere is Rs 60 per annum payable quarterly in advance.

A weekly slip of current rates of produce, freights, and exchange is drawn up by the Committee.

CEYLON

The Ceylon Chamber of Commerce was incorporated in 1885 and has its head quarters at Colombo. All firms and persons engaged in the general trade of Ceylon are admissible as members and every person or firm desirous of joining the Chamber must be proposed by one member seconded by another and be allotted for by the whole Chamber. The affairs of the Chamber are conducted by a Board of Directors consisting of Chairman and Vice-Chairman and from five to 10 members.

The following is the membership of this Committee at the present time —

Mr Wm Moir (J. & Wm Brown & Co) (Chairman)
 Mr J. A. Lochore (Vice Chairman)
 Mr R. B. Philpott (P & O S. N. Co)
 Mr H. S. Jefferson Mr W. G. Macvicar
 (Chartered Bank) Mr W. Philip Mr T. G.
 Clark Mr W. Irwin Mr C. S. Burns
 Mr M. I. Cary

Secretary—Mr T. M. Simison

The Peoples of India

It is essential to bear in mind when dealing with the people of India, that it is a continent rather than a country. Nowhere is the complex character of Indians more clearly exemplified than in the physical type of its inhabitants. No-one would confuse the main types such as Gurkhas, Pathans, Sikhs, Rajputs, Burmans, Nagas, Tamils, etc. nor does it take long to carry the differentiation much farther. The typical inhabitants of India—the Dravidians—differ altogether from those of Northern Asia, and more nearly resemble the tribes of Malaya, Sumatra and Madagascar. Whatever may be their origin it is certain that they have settled in the country for countless ages and that their present physical characteristics have been evolved locally. They have been displaced in the North West by successive hordes of invaders, including Aryans, Scythians, Pathans and Moghals, and in the North East by Mongoloid tribes allied to those of Burma, which is India only in a modern political sense. Between these foreign elements and the pure Dravidians is a borderland where the contiguous races have intermingled.

The people of the Indian Empire are divided by Sir Henry Risley (Caste, Tribe and Race, Indian Census Report, 1901, the *Castes of India*, Ethnology and Caste, Volume I, Chapter 6) into seven main physical types. There would be eight if the Andamanese were included, but this tiny group of Negritos may be disregarded.

The Turko-Iranian, represented by the Baloch, Brahui and Afghans of Baluchistan and the North West Frontier Province. Probably formed by a fusion of Turki and Persian elements, in which the former predominate. Stature above mean, complexion fair, eyes mostly dark but occasionally grey, hair on face plentiful, head broad, nose moderately narrow, prominent and very long. The feature in these people that strikes one most prominently is the proportions, length of their noses, and it is probably this peculiarity that has given rise to the tradition of the Jewish origin of the Afghans.

The Indo-Aryan, occupying the Punjab, Rajputana, and Kashmir and having as its characteristic members the Rajputs, Khatis, and Jats. This type, which is readily distinguishable from the Turko-Iranian, approaches most closely to that ascribed to the traditional Aryan colonists of India. The stature is mostly tall, complexion fair, eyes dark, hair on face plentiful, head long, nose narrow and prominent, but not specially long.

The Scytho-Dravidian, comprising the Maratha Brahmans, the Kunbis, and the Coorgs of Western India. Probably formed by a mixture of Scythian and Dravidian elements. This type is clearly distinguished from the Turko-Iranian by a lower stature, a greater length of head, a higher nasal index, a shorter nose and a lower orbito-nasal index. All of these characters, except perhaps the last, may be due to a varying degree of intermixture with the Dravidians. In the higher groups the amount of crossing seems to have been slight. In the lower the Dravidian elements are more pronounced.

The Aryo-Dravidian or Hindustani, found in the United Provinces, in parts of Raj-

putana, and in Bihar and represented in its upper strata by the Hindustani Brahman and in its lower by the Chamar. Probably the result of the intermixture, in varying proportions, of the Indo-Aryan and Dravidian types. The head-form is long with a tendency to medium, the complexion varies from lightish brown to black, the nose ranges from medium to broad, being always broader than among the Indo-Aryans, the stature is lower than in the latter group and usually below the average according to the scale. The higher representatives of this type approach the Indo-Aryans while the lower members are in many respects not very far removed from the Dravidians. The type is essentially a mixed one yet its characteristics are readily definable and no one would take even an upper class Hindustani for a pure Indo-Aryan or a Chamar for a genuine Dravidian. The distinctive feature of the type: the character which gives the real clue to its origin and stamps the Aryo-Dravidian as radically different from the Indo-Aryan is to be found in the proportions of the nose.

The Mongolo-Dravidian, or Bengali type of Lower Bengal and Orissa, comprising the Bengal Brahmans and Kayasthas, the Mahomedans of Eastern Bengal and other groups peculiar to this part of India. Probably a blend of Dravidian and Mongoloid elements with a strain of Indo-Aryan blood in the higher groups. The head is broad, complexion dark, hair on face usually plentiful, stature medium, nose medium with a tendency to broad. This is one of the most distinctive types in India, and its members may be recognised at a glance throughout the world as a "where" their remarkable aptitude for clerical pursuits has procured them employment. Within its own habitat the type extends to the Himalayas on the north and to Assam on the east, and probably includes the bulk of the population of Orissa, the western limit coincides approximately with the hilly country of Chota Nagpur and Western Bengal.

The Mongoloid, type of the Himalayas, Nepal, Assam and Burma, represented by the Kanaks of Lahul and Kulu, the Lepchas of Darjeeling and Sikkim, the Limbus, Murms and Gurungs of Nepal, the Bodos of Assam and the Burmese. The head is broad, complexion dark with a yellow tinge, hair on face scanty, stature short or below average, nose fine to broad, face characteristically flat, eyelids often oblique.

The Dravidian type extending from Ceylon to the valley of the Ganges and pervading Madras, Hyderabad, the Central Provinces, most of Central India and Chota Nagpur. Its most characteristic representatives are the Panjays of Malabar and the Santals of Chota Nagpur. Probably the original type of the population of India now modified to a varying extent by the admixture of Aryan, Scythian and Mongoloid elements. In typical specimens the stature is short or below mean, the complexion very dark, approaching black, hair plentiful with an occasional tendency to curl, eyes dark, head long, nose very broad, sometimes depressed at the root, but not so as to make the face appear

* The material in this section is almost entirely taken from the Report on the Census of India, 1911, by Mr. E. A. Gait, C.S.I., C.I.E., F.R.S., Fellow of the Royal Statistical Society.

that. This race the most primitive of the Indian types, occupies the oldest geological formation in India, the medley of forest-clad ranges, terraced plateau, and undulating plains which stretches roughly speaking, from the Vindhya to Cape Comorin. On the east and the west of the peninsular area the domain of the Dravidian is contemporaneous with the Ghats, while further north it reaches on one side to the Aravallis, and on the other to the Rajmahal Hills. Where the original characteristics have been unchanged by contact with Indo-Aryan or Mongoloid people the type is remarkably uniform and distinctive. Labour is the birthright of the pure Dravidian whether hoeing tea in Assam the Dnars, of Ceylon cutting rice in the swamps of Eastern Bengal or doing scavenger's work in the streets of Calcutta, Rangoon and Singapore he is recognizable at a glance by his black skin his squat figure and the negro-like proportion of his nose. In the upper strata of the vast social department which is here treated as Dravidian three typical characteristics tend to thin and disappear but even among these traces of the original stock survive in varying degrees.

It must, however, be clearly understood that the areas occupied by these various types do not admit of being defined as sharply as they must be shown on an ethnographic map. They melt into each other insensibly and although at the close of a day's journey from one ethnic tract to another an observer whose attention had been directed to the subject would realise

clearly enough that the physical characteristics of the people had undergone an appreciable change he would certainly be unable to say at what particular stage in his progress the transformation had taken place.

Contrasts.—The linguistic survey has distinguished in India about a hundred and thirty indigenous dialects belonging to six distinct families of speech. In the domain of religion though the bulk of the people call themselves Hindus there are millions of Mahomedans, Animists, Buddhists, Jains, Sikhs, and Christians. So also in respect of social customs. In the north near relatives are forbidden to marry but in the south cousin marriage is prescribed and even closer alliances are sometimes permitted. As a rule female chastity is highly valued, but some communities set little store by it, at any rate prior to marriage and others make it a rule to dedicate one daughter to a life of religious prostitution. In some parts the women move about freely in others they are kept secluded. In some parts they wear saris in others trousers. In some parts again wheat is the staple food in others rice and in others millets of various kinds. All stages of civilization are found in India. At one extreme are the land holding and professional classes many of whom are highly educated and refined at the other various primitive aboriginal tribes such as the head hunting savages of Assam and the leaf clad savages of the southern hills who subsist on vermin and jungle products.

MAIN STATISTICS OF

According to the revised areas adopted in the Census of 1911 the Indian Empire contains 1,802,657 square miles or some 36,000 more than in 1901. About 23,000 square miles have been added owing to the enumeration for the first time of the Agency tracts attached to the North West Frontier Province. A further 6,500 represent the area of the Sunderbans or swampy littoral of the Ganges delta which was left out of account at previous enumerations. Finally the Frontier State of Manipur has been found to contain about 6,000 square miles more than the estimate made in 1901.

Population Divisions.—The provinces under British administration comprise 1,093,074 square miles, or 60.6 per cent of the total. The remainder is included in the Native States. The total population is 315,156,896 of which British territory contains 244,267,541 or 77.5 per cent and the Native States 70,889,355 or 22.5 per cent.

Comparisons with Europe.—These stupendous figures can be grasped only by contrast. The Indian Empire is equal to the whole of Europe except Russia. Burma is about the same size as Austria-Hungary. Bombay is comparable in point of area with Spain. Madras, the Punjab, Baluchistan, the Central Provinces and Berar and Rajputana are all larger than the British Islands, the United Provinces and Bihar are larger than Italy, and Hyderabad and Kashmir than Great Britain excluding Yorkshire.

The population of India exceeds that of Europe without Russia, and is considerably more than three times that of the United States of America. The United Provinces and Bengal, with the States attached to them, both have as many inhabitants as the British Islands, Bihar and

THE INDIAN EMPIRE.

Orissa as France, Bombay as Austria, and the Punjab as Spain and Portugal combined. The population of the Central Provinces and Berar approaches that of Brazil. Hyderabad and Poona have as many inhabitants as Egypt. Central India and Rajputana as Scotland and Ireland combined and Assam as Belgium.

Density.—In the whole Empire there are on the average 175 persons to the square mile, or much the same as Europe outside Russia. In British territory the number to the square mile is 223 and in the Native States 100. The former figure exceeds by 24 the density ratio in France and the latter is identical with that in Spain.

There are great local variations in density. In nearly two-thirds of the districts and States, the number of persons to the square mile is less than 200 and in about a quarter it ranges from 200 to 500. The units with less than 100 persons to the square mile covers two-fifths of the total area but contains only one-eleventh of the population.

Causes of Density.—The productiveness of the soil is the main factor in determining the density of the Indian people. The most thickly peopled tracts are the level plains where practically every inch of the land is fit for tillage. This is notably the case in Bengal and Bihar and the United Provinces East. The next most densely peopled tracts are the low-lying plains along the sea coast in the southern part of the peninsula. In the United Provinces West and the Punjab East the configuration of the surface is equally favourable. The rainfall is more scanty and less

GROWTH OF THE INDIAN POPULATION

	1911	1901	1891	1881	1872.
INDIA	315 156 396	294 381 068	237 314 871	253 896 350	206 162 360
PROVINCES					
Aligar Murari	244 207 542	231 605 040	221 240 870	198 892 817	185 168 435
Andamans and Nicobars	501 395	470 917	474 358	460 727	396 831
Assam	20 489	24 649	15 609	14 628	
Baluchistan	6 711 685	5 841 878	5 477 802	4 907 792	4 150 769
Bengal	414 412	382 108			
Bihar and Orissa	46 488 077	42 141 477	39 080 682	38 316 728	34 119 465
Bihar	34 400 084	33 217 783	32 476 657	30 934 780	26 486 482
Bombay (Presidency)	23 752 969	21 360 212	23 581 688	24 418 367	19 736 627
Bombay					
Chota Nagpur	5 181 728	4 982 142	4 696 227	4 343 064	3 663 156
Coorg	5 005 367	4 900 429	4 628 792	4 255 989	3 147 099
Madras	10 672 642	18 559 680	18 878 471	16 404 548	16 301 362
Madras	10 115 642	15 304 786	15 608 297	14 042 611	14 075 608
Madras	3 518 435	3 210 810	2 875 100	2 676 100	2 208 565
Madras	48 185	43 874	44 079	34 880	19 239
Madras	12 115 217	10 480 024	7 722 033	5 736 771	2 747 148
Central Provinces and Berar	13 916 368	11 971 452	13 048 972	11 943 363	9 951 298
Central Provinces	10 869 146	9 217 456	10 161 481	9 270 600	7 723 614
Central Provinces	3 067 162	2 754 016	2 887 491	2 672 678	2 227 684
Coorg	174 970	180 637	173 065	178 302	168 812
Madras	41 469 404	38 229 654	35 644 429	30 841 134	31 250 622
North-West Frontier Provinces (Districts and Admin Isolated Territories).	2 168 938	2 041 584	1 837 510	1 576 943	17 809 672
Punjab	10 074 956	20 330 377	19 000 368	17 274 597	17 609 672
United Provinces of Agra and Oudh	47 182 014	47 692 277	46 915 312	44 140 959	43 002 004
Agra	34 624 040	34 859 109	34 254 638	32 762 127	30 780 961
Oudh	12 558 004	12 833 168	12 660 674	11 287 832	11 221 045

CITIES

The general practice of statisticians is to treat as cities only those places which have a population of more than 100,000. According to this standard there are in India only 90 cities, with a population of 7,075,782, or 2.2 per cent of the population. Here there is an extraordinary difference between the Indian conditions and those of Western countries. In England the cities contain 46 per cent of the total population in Germany 21 and in France 14 per cent. But even in these countries the growth of cities is comparatively recent. In 1871 England had only 27 cities with 9.6 million inhabitants and Germany only 8 with 2 millions. There are signs that in India the growth will be more rapid in the future than it has been. The population of cities has risen since 1872 by 64 per cent and the net increase comparing like with like is 45 per cent. The most rapid growth during this period is shown by Rangoon which has trebled its population. Next comes Karachi with an increase of 168 per cent and then Madras and Howrah with 158 and 118 per cent respectively. Since 1901 two new places Jubbulpore and Dacca, have entered the list of cities, while Baroda has disappeared from it. Eighteen cities have gained, and twelve have lost population. Of the latter a few like Mandalay are really decadent but in most such as Nagpur and Cawnpore the loss was due wholly to the temporary influence of plague. The progressive cities are differentiated from those which are decadent by their large immigrant population. In Bombay, Calcutta and Howrah this exceeds 70 per cent of the total and in Rangoon and Karachi it is close on 80 per cent. In Patna, Mandalay and Bareilly on the other hand, it is barely 10 per cent.

Calcutta.—In speaking of Calcutta we may mean Calcutta proper or the area administered by the Calcutta Municipal Corporation with the port, fort and casals, the population of which is 866,067, or this area plus the suburban municipalities of Goolpur-Chitpore, Manicktolla and Garden Reach with 1,048,807 inhabitants, or lastly Greater Calcutta which also includes Howrah with an aggregate population of 1,222,813. The suburban municipalities differ from Calcutta only in respect of their Municipal Government. From a structural point of view they can't be distinguished. The buildings are continuous throughout and there is nothing to show where one municipality begins and the other ends. A striking feature of the statistics is the large number of immigrants. Less than 20 per cent of the inhabitants of Calcutta proper claim it as their birthplace. The vast majority are immigrants of whom 204,000 come from Bihar and Orissa and 90,000 from the United Provinces. Of the Bengal districts the largest contributions are those from the 24 Parganas (68,000) Hooghly (48,000) and Midnapur (29,000). The volume of immigration is equally great in the suburbs and Howrah.

The first regular census of Calcutta proper taken in 1872 showed a population of 633,000. In 1881 there was practically no change, but in 1891 a gain of 11.4 per cent. was recorded. In 1901 there was a further increase of 24.3 per cent., but part of this was due to improved enumeration. At the present census the rate of increase in Calcutta proper has dropped to 5.7

per cent. The falling off is due largely to the growing tendency of the inhabitants to make their home in the suburbs or even further afield. The suburban municipalities have grown during the decade by 45.3 per cent.

Bombay.—which has now a population of 978,445 was a petty town with about ten thousand inhabitants when it passed into the possession of the British in 1681. The population was estimated to be 100,000 in 1780, 180,000 in 1814 and 278,000 in 1836. At the first regular census in 1872 it had risen to 844,405 and nineteen years later in 1901 it was 821,764. In the next decade plague which first appeared in September 1896 caused a serious set back and it is estimated that by 1901 this disease had already been responsible for 114,000 deaths. The census of that year showed a decrease of about 6 per cent but this was not wholly due to deaths. At the time when the census was taken, a virulent epidemic was in progress, and large numbers of the permanent residents had sought safety in flight. A fresh enumeration taken in 1906 by the Health Department of the Municipality gave a population of 959,537. The number now returned exceeds that of 1901 by 28 per cent but it is only 2 per cent more than it was at the time of the local enumeration of 1906. It is said that the census of 1911 was taken at a time when many of the immigrants from neighbouring districts had gone to their permanent homes for the Holi holidays, and that many of the cotton mills had closed down temporarily owing to the prohibitive price of the raw material. Like other large trading and industrial centres, Bombay is peopled mainly by immigrants and more than 80 per cent of its inhabitants were born elsewhere. Most of them come from the neighbouring districts more than one-fourth of the total number are from Ratnagiri while four other districts together supply more than a third. There are 30,000 Goanese, most of whom are in domestic service. Of the immigrants from outside the province, some 50,000 chiefly mill hands are from the United Provinces, and 12,000 mainly shopkeepers, from Rajputana. Of the immigrants from outside India the largest number (6,000) come from the United Kingdom.

Madras.—Unlike Calcutta and Bombay Madras which is handicapped by its distance from the coal fields has but few large industries. The indigenous handicrafts are decaying and their place is not being taken by factories of the modern type. As far as its being the headquarters of the Local Government Madras owes whatever importance it possesses to its position as a distributing centre. Of its total population (518,660) only one-third are immigrants, and of these only 1.2 per cent have come from places beyond the limits of the Madras Presidency. The great majority are natives of the four districts in the immediate vicinity of the city.

The population grew fairly rapidly during the twenty years prior to 1901 but since then it has been almost stationary. There has been an increase of about one per cent in the number of persons born in the city but fewer of them

GROWTH OF THE INDIAN POPULATION—contd

	1911	1901	1901	1881	1872
STATES AND AGENCIES					
Assam State (Manipur)	70 888 804	62 753 116	60 078 885	53 013 518	20 998 925
Baluchistan States	348 222	284 485		221 070	
Baroda State	420 591	428 640			
Bengal States	2 032 798	1 952 692	2 415 396	2 182 108	1 987 696
Bihar and Orissa States	822 605	740 599	716 310	698 261	587 837
Bombay States	3 945 209	3 314 474	3 028 018	2 410 611	1 728 900
Bombay States	7 411 077	6 908 550	8 081 950	6 937 898	6 787 970
Central India Agency	9 356 980	8 497 805	10 136 403	9 261 907	
Central Provinces States	2 117 002	1 081 140	1 772 562	1 887 294	928 118
Hyderabad State	18 874 476	11 141 142	11 537 040	9 845 594	
Kashmir State	3 158 120	2 905 575	2 543 962		
Madras States	4 811 841	4 188 086	3 700 622	3 344 849	3 289 392
Mysore State	5 806 193	7 389 399	4 948 604	4 166 188	5 055 402
N. W. F. Provinces (Agencies and Tribal areas)	1 622 094	83 982			
Punjab States	4 312 794	4 424 398	4 283 280	3 861 685	
Rajputana Agency	10 580 432	3 653 896	12 171 749	9 884 255	
Sikhs State	87 920	59 014	80 458		
United Provinces States	852 096	802 097	792 491	741 750	638 750

have been enumerated within the city limits. As compared with 1901, the net gain due to migration is less than 9,000. It is possible that the great demand for labour in Burma, where wages are very high has attracted many of the labouring classes who would otherwise have sought their living in Madras.

Hyderabad—Next to the three Presidency towns, the largest city in India is Hyderabad, the capital of the Nizam's Dominions. Its population is shown in the local Census Report as 500,623. Hyderabad has hitherto made very little industrial progress, and less than a quarter of its population is drawn from outside.

HOUSES AND FAMILIES

Generally speaking it may be said that the labouring classes in India live in one, or at the most two single room huts. The home of a well-to-do peasant consists of a public sitting room and a cook room and several apartments which are arranged round and open on to a courtyard. In spite of the joint family system the number of houses corresponds very closely to the number of families in the European sense. The total number of houses is 85.7 million and there are 64.5 million married females aged 15 and over. Except amongst the higher castes who

form but a small fraction of the total population the joint family system is not nearly so common as is frequently supposed. Where it is in vogue there is often a strong disruptive tendency. In the towns and cities owing to the high rents, the unit for all below the middle class is the room, not the house.

Average population per house

1881	5.8
1891	5.4
1901	5.2
1911	4.9

MOVEMENT OF THE POPULATION

According to the census returns, the total population of India has increased by 7.1 per cent. during the last decade and by 52.9 per cent. since 1872, but the real gain since the latter date is very much less than this. Large tracts of country including the Central India and Rajputana Agencies, Hyderabad and the Punjab States which were omitted from the census returns of 1872, were included in those of 1881. In 1891 the greater part of Upper Burma and Kashmir and several smaller units were enumerated for the first time. In 1901 the most important additions were a portion of Upper Burma and the greater part of Baluchistan. In 1911 the Agencies and tribal areas in the North West Frontier Province, together with a few smaller areas were included within the scope of the enumeration. The real increase in the population in the last 39 years is estimated at about 50 millions, or 19 per cent. This is less than half the increase which has taken place in the same period amongst the Teutonic nations of Europe, but it considerably exceeds that of the Latin nations. In France the population has grown by less than 7 per cent. since 1870 but this is because of its exceptionally low birth rate. In India the birth rate is far higher than in any European country and it is the heavy mortality especially amongst infants which checks the rate of increase.

Famine and Disease.—In addition to the causes which ordinarily govern the movement of the population, India is subject to two special factors—famine and epidemic disease. The decade preceding the census of 1911 was free from widespread famines such as those of the preceding ten years. In 1907 there was a partial failure of the monsoon which was felt over a wide area, extending from Bihar to the Punjab and Bombay and causing actual famine in the United Provinces and in a few districts elsewhere. Prices ruled high in most years and there was an extension of special crops such as jute and cotton, which are more profitable to the cultivator than food grains. It was on the whole a period of moderate agricultural prosperity from the point of view of public health, the usual period would have been an average one, but for the ravages of plague. Breaking out in

Bombay in 1896 it has by March 1901 caused a recorded mortality of half a million. Since then it has continued its ravages especially in Bombay and Upper India. The mortality from it rose from about a quarter of a million in 1901 to 1.3 millions in 1907. It fell below a quarter of a million in each of the next two years but in 1910 it exceeded half a million. The total number of deaths from plague during the decade was nearly 6.5 millions of which over one-third occurred in the Punjab and two-fifths in the United Provinces and Bombay taken together. The disease fortunately has failed to establish itself in Bengal Assam and on the East Coast and in the extreme south of the Peninsula. This however is only the recorded mortality. In time of epidemic the reporting agency breaks down and large numbers of deaths escape registration. Plague attacks women more than men and people in the prime of life more than the young and old. If plague is omitted and it is assumed that the mortality of the decade would otherwise have remained normal, the population of the census of 1911 would have been greater than it was by at least 6.5 millions. In other words, the population would have increased by 9.5 instead of 7.1 per cent.

General Conclusions.—The most noticeable feature is the continuous rapid growth in Burma. Lower Burma has grown by 130 per cent. since 1872 and the whole Province including Upper Burma, which was annexed in 1886, by 37 per cent. since 1891. In Assam including Manipur the increase since 1872 amounts to 70 and in the Central Provinces and Berar to 47 per cent. In the other main provinces the rate of growth has been much slower. In some provinces such as Burma, Assam and Bengal there has been continuous progress but others, at some time or another have sustained a set-back. In the larger provinces at least the internal variations are also frequently considerable. In Bengal one district has at the present time a smaller population than it had in 1872, while four others have more than doubled their population since that date.

In British territory there has been a gain of 9.1 per cent. over about nine-tenths of the area,

SUMMARISED GROWTH OF THE INDIAN POPULATION

	1901 to 1911	1891 to 1901	1881 to 1901	1872 to 1881	Net Variation in period 1872 to 1911 (Increase (+) Decrease (-))
INDIA					
PROVINCES					
Alwar, Marwar	+20 79 340	+7 946 885	+39 418,541	+47 733 970	+108 994 088
Andamans and Nicobars	+12 061 602	+10 88 104	+22,368 019	+19 719 352	+59 104 107
Assam	+24 488	-35 446	+81 686	+64 981	+105 064
Baluchistan	+1 810	+9 040	+ 981		
Bihar	+371 757	+364,170	+569 510	+737 023	+2,562,885
Bombay	+32,306				
Bengal	+3,841 960	+8 051 845	+2 772,904	+2,197,263	+11 363 612
Bihar and Orissa	+1 247 801	+868 226	+1 983 217	+4 501 588	+8 008 002
Bihar	+392,757	-231 326	+1 168 171	+2,862,740	+4,017 942
Orissa	+149 011	+316 915	+322 248	+740 308	+1,623 597
Coastal Nagpur	+704 633	+271 637	+402 863	+1 078 280	+2,457 668
Bombay (Presidency)	+1 112,992	-318 621	+2,331 933	+193 176	+3 371 280
Bombay	+808 275	-664 626	+1 916 671	-23,687	+2,067,534
British	+702,525	+336 810	+468,043	+210 492	+1 706 870
Aden	+2 191	-10	+9 219	+15 671	+28 878
Burma	+1 624 593	+2 768 5 1	+3 945 252	+959 623	9 385 069
Central Provinces and Berar	+1 914 858	-1 077 720	+1 105 609	+1 992 095	+3 935 040
Central Provinces	+1 641 710	-634 045	+869 910	+1 547 076	+3 133 322
Berar	+308 146	-140 475	+234 618	+445 019	+1,620 898
Coorg	-5 621	+7 559	-5 247	+0 990	+6 664
Madras	+177 750	+2,085 226	+4 803 274	-389 488	+10 174 732
North West Frontier Provinces (Districts and Admini- tered Territories)	+155 390	+184 015	+281 576	+1,240 868	+4,662,217
Punjab	-355 381	+1 320 960	+1 784 771		
United Provinces of Agra and Oudh	-510 233	+782 785	+2 755 553	+2 147 955	+5 190 040
- Agra	-235 069	+604,521	+1 432,461	+1 881 109	+3 843,079
- Oudh	-275 164	+1,524,244	+1 283 092	+1,66 769	+1 156 961

with three quarters of the total population, and a loss of 6.3 per cent. in the remaining one-tenth of the area and one-fourth of the population. The contrast in different parts of the Native States is still more striking. The net increase of 10.3 per cent is the outcome of a gain of 14.3 per cent. in four fifths of the total area and population coupled with a loss of 6.3 per cent. elsewhere. The relatively greater net increase in the Native States as compared with British territory is explained by the fact that many of the States suffered severely from famine in the previous decade when they sustained a net loss of 6 per cent. while British territory gained 4.7

per cent. Apart from this, in ordinary circumstances a comparatively high rate of increase is to be expected in the Native States, as they are, on the whole, more undeveloped than British territory and contain a much larger proportion of cultivable waste land. The net increase in India as a whole during the last decade is the resultant of a gain of 10.3 per cent in an area of 1,517,000 square miles, with a population of 245 millions and a present density of 162 to the square mile, and a loss of 5.5 per cent in an area of 218,000 square miles with a population of 68 millions and a density of 312 to the square mile.

MIGRATION

In India there are two currents of migration—minor and major. The chief of the minor movements is the custom, almost universal amongst Hindus, whereby parents seek wives for their sons in a different village from their own. Of the 26.5 million natives of India who were enumerated in a district other than that in which they were born, 16.5 millions, or 62 per cent, were born in a district adjoining that in which they were enumerated. The major currents of migration are governed by economic conditions. The most noticeable movements are the large streams of emigration from Bihar and Orissa, Madras, the United Provinces and Rajputana and of immigration into Bengal, Assam and Burma. Owing to its fertile soil, Bengal is able to support practically the whole of its dense indigenous population by agriculture. It is necessary therefore to man the jute mills by imported labour, as also the tea gardens of Darjeeling and Jalpaiguri and to draw the general labour supply from outside. In Bengal the net excess of immigrants over emigrants is more than 1,400,000. Of these about 236,000 are natives of a district in Bihar and Orissa, or Assam, contiguous to the Bengal district in which they were enumerated. Assam and Burma are sparsely populated and the land available for cultivation being ample very few of the indigenous inhabitants find it necessary to work for hire. The tea gardens of Assam and the rice mills and oil wells of Burma have to obtain their coolies elsewhere. In Assam 12.5 per cent and in Burma 5 per cent of the population are immigrants. On an average 51,000 labourers and dependants go each year to the tea gardens of Assam. In Burma, Madras supplies labourers for the rice-milling, oil and other industries, whilst many coolies flock into the province from Chittagong chiefly for the rice harvest. The net loss to Bihar and Orissa on account of migration is about 1.5 millions. The United Provinces sustain a net loss of about 800,000 from migration, chiefly in the direction of Bengal. Madras being very backward from an industrial point of view there is no great local demand for labour. At the same time there is an exceptionally large population of the "untouchable" castes who have no scruples about seeking their livelihood overseas. It provides Ceylon with labour for its plantations, Burma with labour for its industries, and the Federated Malay States with labour for their rubber plantations. The enterprising Marwari traders of Rajputana have penetrated to all parts of India and are to be found in very important numbers throughout Bengal and even in Assam. Bombay is industrially more advanced than Bengal, but as the soil is less productive

there is a large local supply of labourers chiefly from the southern coast strip called the Konkan. The United Provinces give more than four times as many labourers to Bengal as to Bombay. As for the migration between British India and Native territory it involves a loss of 135,000 to the Native States.

Asiatic Immigration.—Of the 504,000 persons born in other Asiatic countries who were resident in India at the time of the census, more than half were natives of Nepal. Of the 92,000 immigrants from Afghanistan all but 11,000 were enumerated in Northern India. The rest were cold weather visitors who travel about the country peddling piece-goods and other articles of clothing. These Cabuli pedlars cause great trouble in Bengal by their truculence. The number of Chinese is 80,000. Most of these are found in Burma, but the Chinaman is making his way into Bengal where he is appreciated as a shoemaker and carpenter. From Arabia came 23,000 immigrants, chiefly to Bombay.

Non Asiatic Immigration.—The total number of immigrants from countries outside Asia is 146,265. Of these 131,998 come from Europe. The United Kingdom sends 122,919. Germany comes next with only 1,880 and then France with 1,475. As compared with 1901 there is an increase of about 23,000 in the number of immigrants from the United Kingdom. Of the British born 77,628 were serving in the army as compared with 90,665 at the time of the previous census when a strong contingent had been sent from India to reinforce the British garrison in South Africa. The rest of the increase is accounted for by the industrial development which has taken place the extension of railways, and the growing extent to which Englishmen in India marry. The number of females born in the British Islands and enumerated in India has risen during the decade from 14,663 to 19,484. The figures for other European countries do not call for any special comment.

Emigration from India.—The Indian census statistics naturally tell us nothing of the emigration from India to other countries. This emigration is of two kinds the movement across the border which separates India from contiguous countries, such as China, Nepal, Afghanistan and Persia, much of which is of the casual type and emigration to distant countries. No statistics are available regarding the emigration from India to the countries on its borders. There is probably very little movement from Burma into China

SUMMARISED GROWTH OF THE INDIAN POPULATION—Contd.

	1901 to 1911	1901 to 1901	1881 to 1891	1872 to 1881	Net variation in period 1872 to 1911 Increase (+) Decrease (-)
STATES AND AGENCIES					
Assam State (Maulpur)	+9 133 738	-3 718 719	+11 000 322	+34 014 98	+19 889 929
Bahuchetan States	+61 757				
Bamda State	-8 319	-162 704	+233 238	+184 360	+35 290
Bengal States	+80 100	+23 889	+14 049	+120 434	+264 738
Bihar and Orissa States	+82 266	+256 456	+617 407	+686 711	+3 221 306
Bombay States	+630 715	+1 173 391	+1 144 057	+139 923	+613 705
Central India Agency	+503 118	-1 838 688	+574 496		
Central Provinces States	+859 175	-1 838 688	+325 268	+409 178	+1 188 886
Coimbatore State	+18 802	-81 432	+1 691 440		
Kyatsar State	+2 283 634	-305 898			
Kashmir State	+252 548	+301 620			
Madras States	+623 755	+487 464	+355 773	+56 457	+1 522 449
Mysore State	+266 794	+585 795	+757 416	-869 214	+750 791
N W P Province (Agencies and Tribal area)	+1 588 132				
Punjab States	-211 004	+161 118	+401 597		
Rajputana Agency	+677 066	-2 318 888	+2 227 494		
Sikhim State	+28 906	+28 856			
United Provinces States	+29 939	+9 606	+50 741	+103 030	+193 218

but, on the other hand, it is believed that the emigration into the somewhat sparsely peopled Nepal terra from some of the adjacent British districts, where the population is much congested exceeds the countervailing immigration. Very few people go from British territory to settle permanently in Afghanistan or Persia, but at the time when the last census was taken owing to drought in Beluchistan a considerable number of Nomad Brahmins from Orissa, and of Baloch from Mekran had passed over temporarily into Afghanistan and Persia. At a rough guess the number of emigrants across the Indian Frontier may be taken to be about a fifth of a million.

Emigration to Distant Countries.—Of the emigrants to distant countries a certain number find their way to French or Dutch Colonies such as Surinam, Martinique and Guadeloupe. But the majority go to other parts of the British Empire. The total number of emigrants from India to other parts of the British Empire slightly exceeds a million of whom about two-thirds are males more than four fifths of the aggregate are Hindus and only one-tenth are Mahomedans. Of the total number about 474,000 were enumerated in Ceylon, 231,000 in the Straits Settlements and the Malay States, 83,000 in British Guiana, 73,000 in Natal, 51,000 in Trinidad, 85,000 in Mauritius, 29,000 in Fiji and 8,000 each in Jamaica and Zanzibar. About one-fifth of these emigrants fail to specify their province of birth of the remainder no less than 682,000 or 55 per cent. were from Madras, 32,000 from Bengal about 20,000 each from the United Provinces and Bombay, 18,000 from Bihar and Orissa, 13,000 from the Punjab and 8,000 from the Mysore State. The number who emigrated from other parts of India was in considerable. Most of these emigrants to the colonies were as ordinary labourers in sugar, tea, coffee, rubber and other plantations but a large number of those from Bombay and Bengal are lascars on ships, while many of the natives of the Punjab are employed in the army or military police.

Ceylon.—The movement to Ceylon is of long-standing. Owing to the rapid expansion of tea cultivation, the number of natives of

India enumerated in that Island increased by 65 per cent. In the decade ending in 1901. Since then there has been a further increase of nearly 10 per cent. chiefly on account of the new rubber plantations. The great majority of these emigrants are from the southern districts of Madras. Mysore sends about 8,000, Travancore 7,000 and Cochin and Bombay 3,000 each. Most of them are temporary emigrants, who return after a time to their homes in Southern India. The total number of Tamils enumerated in Ceylon exceeds a million but about half of them have been domiciled in the Island for many centuries and barely 100,000 are the offspring of recent settlers.

Malaya.—The emigration to the Straits Settlements and the Malay States is of quite recent growth and is due almost entirely to the demand for labour on the rubber plantations. Most of the emigrants are temporary settlers who return to their homes when they have saved a little money and the total number of Indians enumerated there exceeds by only 12 per cent the number who returned to India as their birth place. Almost four fifths of the total number are males. Here also Madras is the principal source of supply, the Punjab (67.54) being the only other province which sends an appreciable number.

South Africa.—In Natal there has been a great deal of permanent settlement and of the total number of Indians enumerated there, nearly half were born in the colony. Many of these have forgotten their native language and now talk only English. But it is in Mauritius that the process of colonisation has made most headway. The introduction of Indian coolies to work the sugar plantations dates from the emancipation of the slaves three quarters of a century ago and from that time onwards many of the coolies who have gone there have made the Island their permanent home. Though it now contains only 35,000 persons who were born in India, the total number of Indians is 254,000 or about 70 per cent of the whole population. A large part of the Island is now owned by Indians, and they are dominant in commercial agricultural and domestic callings.

RELIGIONS

India is a land of many religions. All the great religious faiths of mankind are represented in its population by communities, whose origin carries us back to the early history of their respective creeds. Hinduism and its offshoots, Buddhism and Jainism, are autochthonous. The Jews of Cochin have traditions which carry back their arrival on the coast to the time of their escape from servitude under Cyrus in the sixth century B. C. The Syrian Christians of Malabar ascribe the introduction of Christianity and the establishment of their original Church to the Apostle St. Thomas in the year 62 A. D. Nearly two centuries before the followers of Mahomed obtained a footing in India as conquerors, a peaceful trading colony of Arabs had settled on the Malabar coast. The Parsi settlement in Gujarat dates from about the same period. These facts are recalled here because, not only Europeans, but even educated Indians, speak as if the first foreign settlements in India

was that which followed the Mahomedan conquest and that Christianity was first brought to the country by the Portuguese. They also dispose of another erroneous idea that up to the time of the Mahomedan conquest, Hinduism absorbed all the foreign elements which found their way into the country. No doubt Greeks, Bactrians and Scythians were so absorbed into the structure of Hinduism but the fact that the Jews the Syrian Christians and the Parsis have remained distinct from Hinduism shows that this was not the case universally. If we may hazard a conjecture it would seem that the ancient Hindu policy towards immigrants who came by land differed from that observed in the case of immigrants by sea. The Indo-Aryan himself entered the country through the mountain passes in the North-West and knew something of the land which lay beyond. But the sea was always something of a mystery and a terror to him, and those

VARIATION IN POPULATION OF THE 30 CHIEF TOWNS

	1911	1901	1891	1881	1872
CALCUTTA AND PORT *					
BOMBAY	846,067	817,708	682,205	612,307	633,009
MADRAS AND CANTONMENT	573,445	509,246	452,514	409,189	444,405
AGRA AND CANTONMENT	185,449	184,022	168,662	160,203	397,552
Amritsar and Cantonment	816,777	385,889	143,412	137,621	140,008
Allahabad and Cantonment	171,994	174,032	175,246	160,118	119,072
Amber and Cantonment	152,746	164,420	139,766	131,898	143,603
Bangalore (Civil and Military Station) †	100,834	81,509	100,001	92,540	135,818
Barridly and Cantonment	129,462	138,107	122,837	115,188	81,810
Bombay and Cantonment	203,904	213,079	223,375	218,573	104,866
Cawnpore and Cantonment	178,65	242,797	194,045	185,869	125,877
Dacca	108,611	89,735	81,051	78,869	68,806
Delhi and Cantonment	232,837	202,375	192,479	173,288	154,417
Howrah	201,346	157,594	110,808	90,818	84,069
Hydrabad and Cantonment	509,623	448,460	416,090	387,417	
Jalgaon	137,098	100,107	138,787	142,578	
Jubbulpore and Cantonment	100,631	90,531	84,682	79,023	60,409
Karachi and Cantonment	151,903	116,608	101,199	73,560	56,758
Lahore and Cantonment	228,937	202,394	176,854	137,287	125,413
Lucknow and Cantonment	210,788	204,049	279,048	261,903	254,779
Madras	134,140	103,984	87,426	78,907	61,957
Mandla and Cantonment	138,290	143,810	158,817	99,547	81,390
Masrat and Cantonment	116,227	113,129	117,390	98,299	84,441
Mysore	101,415	127,734	117,014		
Patna	135,142	134,786	167,192	170,654	158,900
Poona and Cantonment	159,858	153,820	161,590	129,751	118,996
Rangoon and Cantonment	203,816	241,430	182,080	134,176	98,746
Singapore and Cantonment	146,844	122,618	114,990		
Surat and Cantonment	114,868	119,806	109,229	109,844	107,861
Tripunampy and Cantonment	143,512	104,711	190,609	84,449	76,580

* The above figures for Calcutta exclude the population of Chattrapatti, Manikote and Garden Reach. These places have separate Municipal administration, but for all practical purposes they form an integral part of Calcutta. So also does Howrah, except that it lies on the opposite bank of the Hooghly. If the first mentioned Municipalities be added the population of Calcutta rises to 1,043,307. If Howrah also be included it comes to 1,225,515.

† Bangalore City and Bangalore Civil and Military Station are structurally a single unit but for the purpose of the census they have been treated as separate places.

who came from beyond the sea were looked upon as beings of a different day. They were treated hospitably, and in course of time they assimilated much of the influences of their Hindu environment. But they remained all the same separate communities, and no attempt was made to incorporate them in the great mass of Hinduism. The prohibition of sea voyage to members of the higher castes is another proof of the peculiar prejudice which ancient Indians cherished against inhabitants of countries divided from India by intervening seas.

Origin of Hinduism.—We have spoken alone of Hinduism as being autochthonous. The opinion generally held is that the ancestors of the Vedic Indians were immigrants from Central Asia. An Indian scholar of some repute has recently endeavored to show that the received opinion is not borne out by the evidence available in the ancient literature of India. Whatever may be the value attaching to his contention that the Vedic Indians were not immigrants or descendants of immigrants, but only a section of the indigenous population addicted to the cult of fire-worship it is true as he says, that there is no expression in the Vedas of a longing lingering remembrance of a foreign homeland such as one might expect to find in the literature of an immigrant race. This is all the more remarkable as an intense attachment to the land they lived in is manifest in all their compositions. A San kirtī complet in which the names of the seven great rivers of India, the Ganges, the Jamuna, the Godavari, the Saraswati, the Nerbudda, the Indus and the Coavery are strung together in pious praise is recited daily by millions of Hindus at their daily devotions and helps to keep them in mind of the sanctity of the Indian Continent in Hindu eyes. If the ancient Hindus were immigrants, they not only took exceptional care to blot out all memories of the land from which they came from their own minds, but they also strove by every means in their power to bind the reverence and love of their posterity to India as the land par excellence of religion and morality so much so that the name Hindu in the orthodox acceptance of the term, is not applicable to anyone who is not born in India. If the ancestors of the Hindus were foreigners in India, they must have set themselves as a matter of deliberate policy to intertwine the sweetest affections and the highest aspirations of their race with the land in which they had settled to the entire exclusion of the land whence they had come.

Evolution of Hinduism.—Following from the theory that the ancestors of the Hindus were immigrants from Central Asia, is the explanation generally given of the varieties of religious beliefs and social practices to be found within the pale of Hinduism. Hinduism, it is the common idea, was originally a pure and simple creed which has had to compromise with the Animism of the population amongst whom it spread, by accepting several of its gods and superstitions. The greatest obstacle in the way of this explanation is that there is no evidence whatsoever of any organized missionary activity among the Hindus at any time. The immense distances and the absence of means of communication, would

of themselves have made such activity difficult. Moreover a compromise implies selection and rejection and the existence of some agency entrusted with the duty of selection. As a fact, however, we find that Hinduism has exercised very little selection and that it covers practically all the beliefs and customs which prevail amongst the tribes who are included within its pale. Such a state of things is more consonant with the view that the purer forms of Hinduism are highly evolved stages of the older forms which are still observed by the less educated and prosperous sections of the community. This view namely that the higher forms of Hinduism are evolved from lower ones rather than that the latter are corruptions of the former gains support from what is now generally accepted as being the true explanation of the origin of certain social customs. Twenty years ago it was generally held that the custom of child marriages, for instance, was of sacerdotal origin and was most largely prevalent amongst the higher castes from whom it spread to the lower. Recently however it has been proved that child marriages are prevalent far more largely and in a far greater form amongst the lowest castes than amongst the higher castes, and that amongst the latter it is a survival from the times when the caste system was less rigid and intermarriages, that is to say the taking of wives by the higher castes from the lower were common. It may be added that the two most characteristic beliefs of Hinduism, namely that in the transmigration of souls and in the law of *Karma* or retribution, are held with if anything more tenaciously by the lower than by the higher castes.

Scope of Hinduism.—From this point of view the varying beliefs and customs which go under the name of Hinduism not only offer no difficulties, but furnish the right clue to the understanding of this unique socio-religious system. They explain why the term religion as applied to Hinduism does not adequately express its scope and method. Hinduism has no settled creeds which are obligatory on every Hindu. It enforces no fixed and uniform moral standards on the innumerable sects and castes which bear its name. It extends its suffrage to monogamous polygamous and even polyandrous unions between the sexes and, in the case of the so-called *devadās* countenances a life of open irregularity. An Indian newspaper recently instigated an interesting discussion on the question "Who is a Hindu." An eminent Hindu lawyer who subsequently rose to be a judge of one of the Indian High Courts, laid down that a Hindu was one to whom the Indian Courts would apply the Hindu law. The learned lawyer however, forgot that there are Mahomedan castes which follow the Hindu law in regard to the inheritance of and succession to property.

And yet, though Hinduism refuses to conform to almost every one of the ideas which we usually associate with the term religion, it is impossible to deny that it occupies a unique and highly important place amongst the religious systems of the world. The reason why it does not fit into our definition of religion is that it represents a fundamentally different line of evolution in the history of religious

STATISTICS OF RELIGIONS

Religion	India.	British Provinces	Native States
INDIA			
Hindu	315 156 996 217 586 892	244 267 542 163 621 431	70 888,854 53 965,461
Brahmanic Arya	217 337 943 243,445	163 381,380 234 841	53,965,548 8,604
Brahmo	5 504	5 210	294
Sikh	3,014 496	2 171,908	542,558
Jain	1 248 192	468 578	789 604
Buddhist	10 721 453	10 644,409	77 044
Zoroastrian (Parsi)	100 096	86 155	13,941
Musalman	66 617 299	57 423 890	9 223,410
Christian	3 876 203	2,492 284	1,383,919
Jew	20 980	18 524	2,456
Animistic	10,295 168	7 343 024	2,947 144
Minor Religions and Religion not returned	37 101	2 340	84,761
Not enumerated by Religion	1 603 556		1 603,556

POPULATION ACCORDING TO RELIGION AND EDUCATION (CENSUS OF 1911)

Religions.	Males			
	Total Population	Illiterate.	Literate	Literate in English
Hindu	110 865 731	99 642,597	11 923 134	1 018 896
Sikh	1 734 73	1 550 610	184 163	11 490
Jain	643 553	334 968	318 585	13 030
Buddhist	5 296 142	3 151 761	2,134 381	21 767
Parsi	51 123	11 123	40 000	35 884
Muhammadian	34 709 365	32 819 599	2 889 766	176 061
Christian	3 010 724	1 422 154	588 570	252,591
Animistic	5 098 241	5 094 404	53 833	1 521
Minor and Unspecified	28 818	22 430	6 388	2,961
Total Males	160 418 470	148 479 655	16 938 815	1 518 361
	Females			
	Total Population	Illiterate.	Literate	Literate in English
Hindu	106 720 714	105 905 904	814 810	23 659
Sikh	1 279 667	1 262,337	17,230	238
Jain	804 629	580 509	24 120	299
Buddhist	5 435 086	5 117 748	317 338	1,933
Parsi	48 978	17 735	31,213	8,247
Muhammadian	31,888 812	31 746 005	142 807	3 940
Christian	1,885 472	1 013 177	252,295	112,043
Animistic	6 129 803	5 126 313	2,982	74
Minor and Unspecified	29,263	26 355	2 908	1,533
Total Females	162,996 919	151 896 156	1 600 788	153,026
Total Population	318,415,389	299,375 811	18,539,603	1,670,387

thought. In other races the line of evolution was from polytheism to monotheism, but in India it was from polytheism to the higher pantheism. Contrasting the development of the Judaic idea of God with that of the Hindus, Mr. Harold Haffding observes: "With the Hindus there was no God who claimed sole sway; they went back to the power which makes all gods what they are, to the inner aspirations and needs which find vent for themselves in prayer and sacrifice. Following an extremely remarkable line of thought that which drives men to worship gods was itself regarded as the true divine power. Brahma meant originally the magical creative word of prayer, but it afterwards came to denote the principle of existence itself so that we have a transition from the idea of motion towards to that of its goal from prayer to the object addressed in prayer. The Indian philosopher saw the whole universe transused and overspread with Deity. He perceived how evil was being perpetually transformed to good in the cosmic process spreading out before the poet and the philosopher endless and timeless to whom the evil and the good seemed but different stages in a great common process of which the secret was known only to the Supreme Being. No European writer has caught the innermost essence of the Hindu philosophers' idea of the Supreme, so faithfully and expressed it so felicitously as Sir Edwin Arnold in his *Light of Asia*."

Before beginning and without an end,
As space eternal and as surely sure
Is fixed a Power divine which moves to
good,

Only its laws endure
It is not marred nor stayed in any use
All lieth it the sweet white milk it brings
To mothers breathe, it brings the white
drope too,

Wherewith the young snake stings
It slayeth and it saveth nowise moved
Except unto the working out of doom
Its threads are Love and Lak Death and
Pain

The shuttle of its loom
It maketh and unmaketh mending all
What it hath wrought is better than had
been

Slow grows the splendid pattern that it
plans

Its wifely hands between
The ethical values of Hinduism are not different from those of other great religions. Like them it attaches little importance to the qualities which make for worldly success and most importance to self-sacrifice, humility and kindness to all. Only its methods differ. On the whole, however, the Hindu socio-religious scheme, owing to its tendency to make the individual human being a passive instrument in the hands of a Higher Power instead of an active co-operator with it, has favoured stability at the expense of progress.

Hindu sects.—Hinduism is made up of many sects and cults. It is usual to speak of Hinduism as it was before Buddhism, as a single creed, but this is because the literature that has come down to us is the literature of the sect that came to supplant all others.

But even in it, we can, by reading between the lines, discover the existence of rival sects. Even the Vedas themselves are the literature probably of one of several sects which happened to be gifted with a talent for letters. The rapid multiplication of sects, however, was undoubtedly encouraged by the introduction of idol worship in imitation of the practices of decadent Buddhism. Hindu religious philosophers recognised three ways of salvation, namely the way of knowledge, the way of faith and the way of service. Every sect of Hinduism recognises the value of all these three ways but it differs as to the relative importance to be attached to each. The sect of the great philosopher Sankaracharya, who maintained that the Supreme Being was the only Reality and that all the phenomenal universe was Maya or illusion and that salvation came from the realisation of this fact, did not discard faith and service altogether but only gave these a subordinate position in his scheme of religion. Ramanuja Madhva and Vallabhadharva who followed him and in more or less degree refuted his doctrine of the non-reality of the phenomenal universe laid more stress on faith and service than on knowledge but they did not discard the path of knowledge altogether. It should be mentioned here that it has been the great misfortune of Hinduism that the path of service has come to mean the path not of altruistic service to mankind but the path of service conceived in a ceremonial sense to priests, religious recluses and mendicants and to idols. It is the great sin of the modern religious reform movements such as the Arya Samaj and the Brahmo Samaj to rescue the path of service from this spurious interpretation and to make altruistic social service an integral part of religion. The question of sect however does not play a very important part in Hinduism. Except in Southern and to a much smaller extent in Western India, the great mass of the Hindus are not sectaries. In Southern India the Vaishnavas and Madhvas will on no account worship Shiva or visit a temple dedicated to him. The Lingayaths are a Shiva sect found in the Karnatak districts of the Bombay and Madras Presidencies and in Mysore and they have an invincible repugnance to the worship of Vishnu. But these are exceptional instances. But so far as the bulk of the Hindus are concerned, they resort to the nearest shrine whether it be dedicated to Shiva or Vishnu. The attitude of Hinduism to other religions is that they are each of them the most suitable path to salvation for the people who are born in them—that they are all several roads which lead to Heaven. For this reason Hinduism has never been a proselytising religion. This has proved a disadvantage to it face to face with such religions as Mahomedanism and Christianity which not only admit converts, but are actively engaged in seeking them. The proportion of Hindus to the total population has steadily diminished during the last forty years, partly owing to conversions to other religions particularly from amongst the lower classes. Conversions from among members of the higher and literate classes have practically ceased.

Hindunism.—The Hindus number 217,586,892 or 60 per cent. of the total population of

OCCUPATIONS OF THE INDIAN PEOPLE'S

INDIA	313,470 014
A — PRODUCTION OF RAW MATERIALS	227 080 092
I — <i>Exploitation of the Surface of the Earth</i>	228 550 423
Pasture and agriculture	224 695,900
(a) Ordinary cultivation	216 737 137
(b) Growing of special products and market gardening	2,012 503
(c) Forestry	672,093
(d) Raising of farm stock	5 176,104
(e) Raising of small animals	48,063
Fishing and hunting	1 854,583
II — <i>Extraction of Minerals</i>	529 609
Mines	376 927
Quarries of hard rocks	76 424
Salt etc	76,258
B — PREPARATION AND SUPPLY OF MATERIAL SUBSTANCES	38 191,121
III — <i>Industry</i>	35,223,041
Textiles	8,304 501
Hides skins and hard materials from the animal kingdom	698 741
Wood	3 799 392
Metals	1 861,445
Ceramics	2,240,210
Chemical products properly so called and analogous	1 241 587
Food industries	3,711 675
Industries of dress and the toilet	7 750 609
Furniture industries	39 263
Building industries	2,082 499
Construction of means of transport	66 056
Production and transmission of physical forces (heat light electrical by motive power etc)	14 384
Industries of luxury and those pertaining to literature and to arts and sciences	3,141 665
Industries concerned with refuse matter	1 388 515
IV — <i>Transport</i>	3 023,900
Transport by water	982,760
Transport by road	2,781,938
Transport by rail	1 062 493
Post Office telegraph and telephone services	201,781
V — <i>Trade</i>	17 839 102
Banks, establishments of credit, exchange and insurance	1,220 187
Brokerage commission and export	240 858
Trade in textiles	1 277 469
Trade in skins leather and furs	296,712
Trade in wood	224 653
Trade in metals	59,766
Trade in pottery	101 981
Trade in chemical products	171 927
Hotels, cafes restaurants etc	719 052
Other trade in food stuffs	9 478,308
Trade in clothing and toilet articles	306 701
Trade in furniture	173 413

India. Buddhists and Jains together number 11,000,000. Thus 229,536,527 or about 78 per cent. of the Indian people depend for their spiritual sustenance on Hinduism and its offshoots.

The Buddhist population is mostly Burmese, Buddhism having ceased a thousand years ago to count as a leading religion in the land of its birth. Several reasons are usually given to account for the hostility of Hinduism to Buddhism such as that Buddha doubted the authority of the Vedas and the existence of God and of the human soul. Jainism did all this and yet Jains to-day occupy a recognised position in the Hindu social system. The real reason for the Hindu hostility to Buddhism was that it influenced and was in its turn influenced by in the later years of its prevalence in India, the alien Mongolian consciousness. Hinduism has always been extremely tolerant of indigenous heresies, but it is jealous of outside influence. Indian Buddhism too had become extremely corrupt and superstitious long before Hinduism re-established itself as the religion pre-eminently of the Indian people.

Other Indigenous Religions—Buddhism and Jainism were originally only sects of Hinduism. Jainism even now is not so sharply divided from the latter religion as Buddhism is. Jains are everywhere a recognised section of Hindu Society and in some parts of the country there has been an increasing tendency on their part to return themselves at the Census as Hindus. The outstanding feature of Jainism is the extreme sanctity in which all forms of life are held. The Jains are generally bankers and traders. Their number at the last Census was 1,248,182, the apparent decline being due to the tendency noted above for Jains to return themselves as Hindus. Buddhism is professed but by few persons in India. The Buddhist population of the Indian Empire is mainly Burmese. Their number is 10,721,658. The founders of Buddhism and Jainism are believed to have been contemporaries, whose date is assigned somewhere in the 6th Century B.C. Sikhism which is the next important indigenous religion, had its origin many centuries later. The founder of Sikhism,

Guru Nanak, flourished in the latter half of the 15th Century of the Christian era. Nanak's teaching amounted to nothing more than pure Theism. He taught that there is only one true God, he condemned idolatry proclaimed the futility of pilgrimages and rites and ceremonies and declared that the path to salvation lies through good deeds combined with devotion to the Supreme Being. He preached the brotherhood of men. Sikhism continued to exist as a pacific cult till about the end of the seventeenth century when the persecutions of Aurangzeb had the effect of converting it into a militant creed. This momentous change was accomplished under the direction of Guru Govind, the tenth and last of the Gurus. "I shall send a sparrow, he once exclaimed and let the imperial falcons fly before it. On his death bed he exhorted his followers to regard the Granth, the sacred book of the Sikhs, as their Guru, to look upon it as the person of the living Guru. After his death Sikhism passed through a period of deepest gloom but it soon recovered and in 1758 the Sikhs entered Lahore in triumph. The teachings of Guru Nanak have profoundly affected Hindu thought and life in the Punjab, though the number of persons professing the Sikh religion is only 8,014,406 according to the 1911 Census. This represents an increase of over 40 per cent. since 1901. Two other religious movements, offshoots of Hinduism, remain to be mentioned, namely the Brahmo-Samaj and the Arya-Samaj. Both of them are less than one hundred years old. The founder of the former was Raja Ram Mohan Ray and of the latter Swami Dayanand Saraswati. The Brahmo-Samaj does not believe in an infallible scripture while the Arya-Samaj accepts the Vedas as Divinely revealed. Both the movements are opposed to idolatry and favour social reform. The Brahmo movement appealing as it does to the cultured intellect has not been making as much progress as the Arya-Samaj. The number of persons professing each of these creeds is 5,604 and 243,445 respectively. The stronghold of the Arya-Samaj is the Punjab, that of the Brahmo-Samaj Bengal.

Non Indian Religions

Mahomedanism—Of non-Indian religions, that is, of religions which had their origin outside India the religion which has the largest number of followers in this country is Mahomedanism. One hundred years before the Muslim conquest obtained a foothold in Hind by right of conquest they were settled in Cochin as traders and missionaries. The author of Cochin Tribes and Castes refers to a tradition that in the 7th Century a Mahomedan merchant named Malik Medina, accompanied by some priests, had settled in or near Mangalore. The Kollam era of Malabar dates, according to popular tradition, from the departure of (Cheruman) Paruvall, the last of the Perumal Kings, to Arabia, on his conversion to Islam. The date of the commencement of the era is the 15th August 935 A.D. For about twelve centuries, Islam has existed in India side by side with Hinduism. During that period it has been greatly influenced by Hindu ideas and Hindu rites. Moreover, the Indian converts to Mahomedanism have to a large extent retained

the customs and beliefs of Hinduism. The writer of the article on religions in India in the new edition of the *Imperial Gazetteer* observes of Islam in India: "If it has gained some converts from Hinduism it has borrowed from it many of those practices which distinguish it from the original faith of Arabia. By degrees the ferocious enthusiasm of the early raiders was softened down, the two religions learned to live side by side and if the Mahomedan of the later days could never conceal his contempt for the faith of his 'pagan' neighbours, he came to understand that it could not be destroyed by persecution. From the Hindus Islam derived much of its demonology, the belief in witchcraft and the veneration of departed Pirs or Saints. The village Muselman of the present day employs the Hindu astrologer to fix a lucky day for a marriage, or will pray to the village god to grant a son to his wife. This is the more natural, because conversion to Islam, whenever it does occur, is largely from the lower castes." Mahomedanism has

OCCUPATIONS OF THE INDIAN PEOPLE—*contd*

Trade in building materials	84 613
Trade in means of transport	239 396
Trade in fuel	524,952
Trade in articles of luxury and those pertaining to letters and the arts and sciences	523 130
Trade in refuse matter	8,595
Trade of other sorts	2,102,534
C—PUBLIC ADMINISTRATIONS AND LIBERAL ARTS	10 912 123
<i>VI—Public Force</i>	<i>2,395,586</i>
Army	665 273
Navy	4 540
Police	1 725,863
<i>VII—Public Administration</i>	<i>2 648 005</i>
<i>VIII—Professions and Liberal Arts</i>	<i>5 325,357</i>
Religion	2,769 489
Law	302 408
Medicine	525 900
Instruction	674,892
Letters and arts and sciences	951 167
<i>IX—Persons living principally on their income</i>	<i>540 174</i>
D—MISCELLANEOUS	17 236 678
<i>X—Domestic Service</i>	<i>4 599 090</i>
<i>XI—Insufficiently described Occupations</i>	<i>9 236 210</i>
<i>XII—Unproductive</i>	<i>3 451 951</i>
Inmates of jails, asylums and hospitals	122,610
Beggars, vagrants and prostitutes	3 318,771

DISTRIBUTION OF THE POPULATION

	India	British Provinces	Native States
1	2	3	4
Area in square miles	1 802 657	1 093 074	709 583
Number of Towns and Villages	722,495	538 809	153,686
(a) Towns	2,153	1 452	701
(b) Villages	720 342	537 357	152 985
Number of Occupied Houses	63 710 179	49 140 947	14 569 232
(a) In Towns	6 087 456	4 409 121	1 628 325
(b) In Villages	57 622,723	44 731 825	12,940 907
Total Population	315 156 396	244 267 542	70 888 854
(a) In Towns	29 748 228	22 817 715	6 990 513
(b) In Villages	235 408 168	221,449 827	63 898 341
Males	161 338 935	124,678 691	36,665 244
(a) In Towns	16 108,804	12,536 830	3,582,474
(b) In Villages	145 230 331	112,141 861	32,882,770
Females	153,817 461	119,588 851	34,423 610
(a) In Towns	13,639 924	10,281,885	3,348 039
(b) In Villages	140,177 537	109,306 966	31,075 571

two main and several minor sects. The major sects are the Bishah and the Sunni. The great majority of Indian Mussulmans are of the latter sect. The Punjab and Sind in the North West and East Bengal in the North East are the strongholds of Islam in India. The Mussulman population of India according to the Census of 1911 is 66,847,299. Of this number no less than 24 millions are in Bengal, about 12 millions in the Punjab and about 5 million in the United Provinces. Amongst Native States Kashmir has the largest Mussulman population about 2½ millions.

Christianity.—Indian Christianity has an even longer history than Indian Mahomedanism. According to the tradition prevailing among the Syrian Christians in Malabar the introduction of Christianity and the establishment of the Original Church in Malabar in the year 52 A.D. are ascribed to the Apostle St. Thomas, who landed at Cranganore or Mudra converted many Brahmins and others, ordained two Presbyters, and also founded seven churches, six in Travancore and Cochin and the seventh in South Malabar (Cochin Castes and Tribes Vol. II Chapter XVI, p. 430). The history of Roman Catholicism in India dates from the beginning of the sixteenth century. The first Protestant mission was established two centuries later by the Lutherans who started their work in Tranquebar in South India under Danish protection. The Christian population according to the last Census, numbers 3,86,293. Nearly 2½ millions are inhabitants of the Madras Presidency and the Native States connected with it. Bihar and Bombay have each over 200,000 Christians.

Zoroastrianism.—This religion was brought or brought back to India in 711 A.D. by Par, who, fleeing from persecution at the hands of the Mussulman conquerors of their native land arrived at the little port of Sanjan, sixty miles north of Bombay in that year. According to the Indian antiquarian scholar the late Rajendra Lal Mitra the ancestors of the Hindus and Parsis dwelt together in the Punjab when a religious schism led to the latter retracing their steps to Persia. This theory derives probability from the names of the beneficent and malefic deities referred to in the Hindu and Parsi sacred books. What is most striking in the

relations of the two faiths, is," writes Mr. Crooke in his article on the Religions of India in the *Imperial Gazetteer*, "that in the Avesta the evil spirits are known as Dævas (modern Persian Divs) a term which the Indo-Aryans applied in the form Deva, to the spirits of light. By a similar inversion Asura, the name of the gods in the Rig Veda, suffered degradation and at a later date was applied to evil spirits, but in Iran, Ahura was consistently applied in the higher sense to the deity especially as Ahura Mazda, the wise to the Supreme God. The Parsis have two sects. The principal difference between them appears to be that the holy days of the one precede those of the other by about a month. The number of Parsis according to the last Census is 100,006. The majority of the Parsis live in Bombay.

Jews.—The Ben Israel at Kolaba in Bombay and the Jews at Cochin are descendants of Jews at Cochin. The Kolaba Colony dates back to the 15th century and the Cochin colony to the second century A.D. Both Jewish colonies recognize a white and black section the latter being those who have more completely coalesced with the native population. The Jews numbered 20,980 at the census of 1911.

Animists.—Since the Census of 1881 an attempt has been made to enumerate the Animists separately from the Hindus. 10,20,188 persons are classed as Animists according to the last Census. The difference between Animism and Anthropomorphism has been stated by Professor Westermarck, to be that while the animist worships inanimate objects as gods, Anthropomorphism, "conceives in the worship of spirits objects as representatives and reflections of the Deity, as a subtle distinction of this kind is not within the grasp of the average enumerator, the category of Animists in the Census Schedules is largely conjectural. Mr. Crooke in the *Imperial Gazetteer* observes "Such a classification is of no practical value simply because it ignores the fact that the fundamental religion of the majority of the people—Hindu, Buddhist or even Mussulman is mainly Animistic. The peasant may nominally worship the greater gods, but where trouble comes in the shape of disease, drought, or famine it is from the older gods that he seeks relief."

SOCIAL INSTITUTIONS

Uniformity of Indian Social Life.—Though India is a land of many religions and though each religious community has as a rule, lived apart from the other communities for centuries still there is a considerable uniformity in the arrangements and institutions of their social life. The social system of the Hindus is the type to which all other communities domiciled in the country have hitherto tended to conform. To a large extent this uniformity of social arrangements is clearly due to the fact that amongst the Mahomedans and Indian Christians for instance, the converts from Hinduism continued to retain their old ideas in regard to social conduct. To a smaller extent the motive which influenced them to conform to Hindu social ideal has been the convenience thereby caused in business intercourse with their Hindu neighbours.

Thus, we find there is scarcely any community in India which has not been more or less infected by the caste spirit. The Jews, the Parsis, the Christians, and even the Mahomedans have been influenced by it. Other Hindu social institutions and customs which have exerted a similar influence are the joint family system, the custom of child marriages and of enforced widowhood, and the feeling that contact with persons engaged in certain occupations is polluting. In view of this general similarity of the social institutions of the several Indian communities, a description of the Hindu social system which is the great prototype of them all will give a general idea of the social life of the Indian population as a whole. It should, however, be mentioned here that, in recent years, as the result of a growing communal consciousness, efforts have been

made by many of the Indian communities to discard whatever is in discord with the original simplicity of their respective faiths. But this movement has as yet touched no more than the highly educated fringe and even among the latter there are thoughtful men who distrust "revivals" as substitutes for reform.

Caste—The most conspicuous social institution of India is Caste. Caste is based on birth. The effect of caste is to divide society into a number of vertical sections and not as in modern countries, into horizontal sections. The economic and cultural differences among the members of each caste are great. The millionaire and the pauper, the scholar and the illiterate of one caste form a social unit. The rich man of one caste must seek a husband for his daughter among the poor of his caste if he cannot find one of a corresponding position in life. He can on no account think of marrying her to a young man of another caste, though as regards culture and social position he may be a most desirable match. Thus each caste is, within itself a democracy in which the poor and the lowly have always the upper hand over the rich and the high placed. In this way the system of caste has in the past served as a substitute for State relief of the poor by means of special laws and institutions. To some extent this is the case even now, but the economic pressure of these days and the influence of Western education, are profoundly modifying the conception of caste. The growth of the English-educated class on the one hand, and of the modern industrial and commercial classes of Indians on the other with common aspirations and interests, is a factor calculated to undermine the importance of caste. At least for purely social purposes it will no doubt linger for many years longer, but ultimately to collapse before the intellectual and economic influences which are moulding modern India. The question how caste originated has been discussed by several learned Orientalists but the latest and most authoritative opinion is that its rise and growth were due to several causes the principal of them being differences of race and occupation. The four original castes of the Hindus have multiplied to nearly two thousand, owing to the dissimilar tendencies of Hindu social life. Some large castes consist of many thousands of families while others, notably in Gujerat, comprise scarcely a hundred houses. Among Indian Mahomedans there are several communities which are virtually castes though they are not so rigidly closed as Hindu castes. Indian Christian converts in some parts of the country that on maintaining the distinctions of their original castes, and in a recent case one caste of Indian Christians contested in a Court of Law a ruling of their Bishop disallowing the exclusive use of a part of their church to members of that caste. The Parsis are practically a caste in themselves. The observations regarding caste apply more or less to the institution of the joint family of which really the former is an extension. This institution is rapidly breaking up though the rigidity of the Hindu law of succession operates wholly in its favour.

The Social Reform Movement—The social reform movement among the Hindus

to which reference is made in the foregoing paragraph had its origin in efforts made by the Government of India, with the co-operation and support of enlightened Hindus in the early part of the last century to put down the practice of *sati*, that is burning the widow along with her dead husband. This cruel practice which prevailed particularly among the high caste Hindus in Bengal was eventually suppressed by legislation. But the discussions which ensued in connection with *sati* question led to the exposure of the hard lot of Hindu widows as a class. Remarriage was prohibited and as child marriages were common several young girls were condemned to lead a life of celibacy on the death of their husbands. This led to immorality and infanticide by young widows who were anxious to hide their shame was not infrequent. Led by the Pandit Ishwar Chandra Vidyasagara a very learned Sanskrit scholar a movement began which had for its object the removal of the ban on the remarriage of Hindu widows. The Pandit was able to prove from the Hindu religious books that the remarriage of widows had the sanction of antiquity. But it was necessary in order to establish the validity of the remarriage of Hindu widows, beyond doubt to have a law passed by the Legislative Council of the Governor General of India. The Pandit and his followers memorialised Government. There was strong opposition from the orthodox masses but the Government of the day were convinced that justice was on the side of the reformers and the Hindu Widow Remarriage Act was passed. The controversy on this question or the remarriage of widows led to other consequences. It was felt that the age at which girls were married was abnormally low and that child marriages were at the root of many social evils. It was also realised that the general illiteracy of Indian women was the greatest obstacle in the way of reforming social customs and that education of women should be the first plank in the social reform platform. The earliest social reformers in India were the Brahmo Samajists who discarded idolatry and caste. Other reformers soon then have endeavoured to propagate ideas of social reform entirely on a secular basis. The Indian National Social Conference is their principal organisation, and it is supported by Provincial and District Committees and Associations. Social reform ideas have made considerable headway during the last twenty-five years. Widow marriages are of weekly occurrence in some provinces. The restrictions of caste as to inter-dining and *savayars* have lost much of their force. The age at which girls are married is steadily if slowly rising. The education of girls is making rapid progress. An increasing number of them go to high schools and colleges every year. But the most significant testimony to the spread of social reform ideas in the country is the remarkable diminution in the volume and weight of the opposition to them. The number of journals devoted to the social reform cause is increasing and some of the newspapers which had made themselves conspicuous by their virulent opposition to social reform twenty years ago now recognise its utility and importance.

SEX.

In India as a whole the proportion of females per thousand males rose steadily from 954 in 1881 to 963 in 1901. It has now fallen again to exactly the same figure as in 1881. The important aspect of these figures is the great contrast they show between India and Europe, where the number of females per thousand males varies from 1093 in Portugal and 1068 in England and Wales, to 1018 in Belgium and 1008 in Ireland. In drawing attention to this disparity the Chief Census Officer argued that the relatively high mortality amongst females was sufficient to account for the difference stated. Then in summarising the causes of this relatively higher mortality he said: "In Europe, boys and girls are equally well cared for. Consequently as boys are constitutionally more delicate than girls by the time adolescence is reached a higher death rate has already obliterated the excess of males and produced a numerical equality between the two sexes. Later on in life the mortality amongst males remains relatively high, owing to the risks to which they are exposed in their daily avocations, hard work, exposure in all weathers and accidents of various kinds combine to make their mean duration of life less than that of women who are for the most part engaged in domestic duties or occupations of a lighter nature. Hence the proportion of females steadily rises. In India, the conditions are altogether different. Sons are earnestly longed for while daughters are not wanted. This feeling exists everywhere, but it

varies greatly in intensity. It is strongest amongst communities such as the higher Rajput clans, where large sums have to be paid to obtain a husband of suitable status and the cost of the marriage ceremony is excessive and those like the Pathans who despise women and hold in derision the father of daughters. Sometimes the prejudice against daughters is so strong that abortion is resorted to when the midwife predicts the birth of a girl. Formerly female infants were frequently killed as soon as they were born and even now they are very commonly neglected to a greater or less extent. The advantage which nature gives to girls is thus neutralised by the treatment accorded to them by their parents. To make matters worse, they are given in marriage at a very early age, and cohabitation begins long before they are physically fit for it. To the evils of early child bearing must be added unsanitary midwifery and the combined result is an excessive mortality amongst young mothers. In India almost every woman has to face these dangers. Lastly amongst the lower classes who form the bulk of the population, the women often have to work as hard as, and sometimes harder than the men, and they are thus less favourably situated in respect of their occupations than their sisters in Europe." It is but fair to say that this conclusion has been challenged by many Indian writers who attribute far greater importance than the Chief Census Officer to the omission of females at the enumeration.

MARRIAGE.

Although recognised in some backward parts polyandry is now rare in India. With orthodox Hindus marriage is a religious sacrament which cannot be revoked. The Mahomedans allow a man to divorce his wife without any special reason, but he then becomes liable to pay her dowry. The permission is seldom acted upon. The Buddhists of Burma regard marriage merely as a civil contract and either side can annul it. The Hindu law places no restriction on the number of wives a man may have, but most castes object to their members having more than one wife, except for special reasons. A Mahomedan may have four wives, but he also in practice is generally monogamous.

Marriage Statistics.—In the population of ages and religions about half the males and one-third of the females are unmarried. 46 per cent of the males and 42 of the females are married, and 5 and 17 per cent respectively are widowed. A reference to the age statistics shows that the great majority of the unmarried of both sexes are very young children three-quarters of the bachelors being under 15 years of age while a somewhat larger proportion of the spinsters are under 10, only one bachelor in 24 is over 30, and only one spinster in 14 is over 15. At the higher ages practically no one is left unmarried, except persons suffering from some infirmity or disfigurement, beggars, prostitutes, concubines, religious devotees and mendicants and a few members of certain hypergamous groups who have been unable to effect alliances of the kind which alone are permitted to them by the rules of their community. It is the persons of the above class

es who contribute the 4 per cent of the males over 40 and the 1 per cent of the females over 30 who are not, and never have been, married.

Marriage Universal.—This universality of marriage constitutes one of the most striking differences between the social practices of India and those of Western Europe. It has often been explained on the ground that, with the Hindus marriage is a religious necessity. Every man must marry in order to begot a son who will perform his funeral rites and rescue his soul from hell. In the case of a girl it is incumbent on the parents to give her in marriage before she reaches the age of puberty. Failure to do so is punished with social ostracism in this world and hell fire in the next. But it is not only with the Hindus that marriage is practically universal it is almost equally so with the Mahomedans, Antists and Buddhists.

Early Marriage.—Another striking feature of the Indian statistics as compared with those of Western Europe is the early age at which marriage takes place. According to M. Sunde's table showing the average distribution by age and civil condition of the people of Western Europe according to the censuses taken about the year 1880 of the population below the age of 20 only one male in 2.14 is married and one female in 14.2. In India on the other hand, 10 per cent of the male, and 37 per cent of the female population below that age are married. The number of males below the age of 5 who are married is small, but of those aged 5 to 10, 4 per cent are married and of those aged 10 to

15-18 per cent. At 15-20 the proportion rises to 32, and 20-30 to 64 per cent. Of the females under 5 one in 72 is married, of those between 5 and 10 one in ten, between 10 and 15 more than two in five, and between 15 and 20 four in five. In the whole of India there are 24 million wives under 10 and 9 million under 15 years of age. The Hindu law forbids marriage at a very early age while many of the aboriginal tribes do not give their girls in wedlock until after they have attained puberty.

Widowhood—It is only when we come to a consideration of the widowed that we find a state of things peculiarly Indian and one that seems to be derived from the prescriptions of the Hindu law-givers. The proportion of widows (3 per cent of the total male population) does not differ greatly from that in other countries, but that of the widows is extraordinarily large, being no less than 17 per cent of the total number of females against only 9 per cent in Western Europe. When we consider their distribution by age the difference becomes more still striking for while in Western Europe only 7 per cent of the widows are less than 40 years old in India 28 per cent are in low this age, and 18 per cent (the actual number exceeds a third of a million) are under 15 an age at which in Europe no one is even married.

The large number of widows in India is due partly to the early age at which girls are given in marriage, and partly to the disparity which often exists between the ages of husband and wife but most of all to the prejudice against the re-marriage of widows. Many castes especially the higher ones forbid it altogether and even where it is not absolutely prohibited it is often unpopular. Although widow marriage is permitted by their religion and the Prophet himself married a widow, the Mahomedans of India share the prejudice to some extent. How the re-marriage of widows first came to be objected to it is impossible to say but it seems highly probable that the interdiction originated amongst the Aryan Hindus that it was confined at first to the higher castes and that it has spread from them downwards.

Infant Marriage—It is difficult to draw from the statistics any definite conclusion as to whether infant marriage is becoming more or less common but so far as they go they point to a slight diminution of the practice. The figures for 1901 were abnormal owing to the famines of 1897 and 1900 and it is safer to take the year 1891 as the basis of comparison. There are now 18 Hindu girls per mille who are married at the age of 0-5 as compared with only 16 at that time, but at the age 5-10 the proportion has fallen from 146 to 132 and at 10-15 from 542 to 488. Amongst Mahomedans the proportion at the first mentioned age-period has fallen from 7 to 6 at the second from 83 to 65 and at the third from 474 to 393.

The practice has been denounced by many social reformers, since Mr. Malabarji opened the campaign a quarter of a century ago, and the Social Conference which holds its meetings annually in connection with the National Congress has made the abolition of child marriage one of the leading planks in its platform. It is as we have seen, strongly discouraged by the Brahmins in Bengal and the Aryas in Northern India. The more enlightened members of the higher castes who do not allow widows to re-marry are beginning to realise how wrong it is to expose their daughters to the risk of lifelong widowhood, and a feeling against infant marriage is thus springing up amongst them.

In two Native States action has been taken. In Mysore an Act has been passed forbidding the marriage of girls under eight altogether and that of girls under fourteen, with men over fifty years of age. The object of the latter provision is to prevent those unequal marriages of elderly widows with very young girls which are popularly believed to be so disastrous to the health of the latter and which in any case must result in a large proportion of them leading a long life of enforced widowhood. The Gaekwar of Baroda, the pioneer of so much advanced legislation has gone further. He passed for his State in 1904 in the face of a good deal of popular opposition an Infant Marriage Prevention Act which forbids absolutely the marriage of all girls below the age of nine and allows that of girls below the age of twelve and of boys below the age of sixteen only if the parents first obtain the consent of a tribunal consisting of the local Sub-Judge and three assessors of the petitioner's caste. Consent is not supposed to be given except on special grounds which are specified in the Act.

Widow re-marriage—The prohibition of widow marriage is a badge of respectability. Castes do not allow it rank higher on that account in social estimation. There is a strong tendency amongst the lower Hindu castes to prohibit or at least to discountenance the marriage of widows. At the other end of the social structure there is a movement in the opposite direction. Many social reformers have inveighed against the condemnation of virgin widows to perpetual widowhood and have pointed out that the custom is a modern innovation which was unknown in Vedic times. In many provinces recently there have been cases in which such widows have been given in marriage a second time not only amongst Brahmins and Aryas who naturally lead the way but also amongst orthodox Hindus. A number of such marriages have taken place amongst the Bhatias of the Bombay Presidency. It is said that in the United Provinces considerably more than a hundred widows have been re-married in the last ten years. The actual results no doubt are small so far but the first step has been taken and the most violent of the opposition has perhaps been overcome.

EDUCATION

The general education policy of the Government of India, and its results, are discussed in a special article Education (q.v.). But we may conveniently here indicate some of the education tendencies revealed in the census returns.

Of the total population of India, only 50 persons

per mille are literate in the sense of being able to write a letter to a friend and to read his reply. The number who can decipher the pages of a printed book with more or less difficulty is no doubt much larger. Throughout India there are many Hindus who though unable to write can

drone out at least the more familiar parts of the *Mahabharata* or *Ramayana* to their neighbours who feel that it is meritorious to listen to the recital of the sacred texts, even though they and possibly the reader also may not always fully understand the meaning. Similarly there are many Mahomedans especially in Northern India who can read the Koran though they cannot write a word. Of this minor form of literacy the census takes no count. The number of persons who are literate in the sense in which the term was used at the present census is divided very unequally between the two sexes. Of the total male population 196 per mille are able to read and write, and of the female only 10. In other words there is only one literate female to every eleven males. If we leave out of account children under 15 years of age the number of literate males per mille is 143 and that of literate females 13.

Education by Provinces.—Thanks to the free instruction imparted in the monasteries and the absence of the *pardah* system which hampers the education of females in other parts of India, Burma, Ceylon and the West Indies in respect of literacy. In the whole population 222 persons per mille are literate and the proportion rises to 314 amongst persons over 15 years of age. In every thousand persons of each sex 36 males and 61 females are able to read and write. Of the other main British provinces Bengal and Madras come next with 77 and 76 literate persons per mille respectively. Bombay follows closely on their heels. Then after a long interval, come Assam, Bihar and Orissa and the Punjab. At the bottom of the list are the United Provinces and the Central Provinces and Berar with 34 and 33 literate persons per mille respectively. Differences similar to those noticed above sometimes have their counterpart within provincial boundaries. Thus in Bihar and Orissa the Orissa native division has 64 literate persons per mille and the Chota Nagpur plateau only 28. In the Central Provinces and Berar the proportion ranges from only 8 per mille in the Chota Nagpur States to 64 in the Verduddla Valley.

Native States.—Education is more widely diffused in British provinces than in the Native States, which, taken as a whole, have only 79 males and 8 females per mille who are literate as compared with 118 and 11 in British territory. The three Native States of Cochin, Travancore and Baroda however take rank above all British provinces except Burma, while in respect of female education Cochin divides with Burma the honours of first place. The Kashmir State where only 21 persons per mille can read and write is in this respect the most backward part of India.

By Religion.—Of the different religious communities excluding the Brahmins and Aryas whose numbers are insignificant, the Parsis easily bear the palm in respect of education. Of their total number 713 per mille are literate, and the proportion rises to 831 if persons under 15 years of age are left out of account. Of the males nearly four fifths are literate, and of the females nearly two-thirds. Amongst those over 15 years of age only 8 per cent of the males and 26 per cent of the females are unable to read and write. The Jains, who are mostly traders, come next, but they have only two literate persons to every five amongst the Parsis. Half the

males are able to read and write, but only 4 per cent of the females. It is noticeable however that whereas the proportion of literate males is only slightly greater than it was at the commencement of the decade that of literate females has doubled. The Buddhists follow closely on the Jains with one person in four able to read and write. Here also we see the phenomenon of a practically unchanged proportion of literate males (40 per cent) coupled with a large increase in that of literate females, which is now 6 per cent compared with 4 per cent in 1901. The Christians (22 per cent literate) are almost on a par with the Buddhists, but in their case the inequality between the position of the two sexes is much smaller, the proportion of literate females being nearly half that of males. In order to ascertain how far the high position of Christians is due to the inclusion of Europeans and Anglo-Indians the figures for Indian Christians have been worked out separately. The result is somewhat surprising, for although the Indian converts to Christianity are recruited mainly from the aboriginal tribes and the lowest Hindu castes, who are almost wholly illiterate, they have in proportion to their numbers, three times as many literate persons as the Hindus and more than four times as many as the Mahomedans. One Indian Christian in six is able to read and write for males the proportion is one in four and for females one in ten. The influence of Christianity on education is strikingly illustrated by the figures for the province of Bihar and Orissa where the proportion of Indian Christians who are literate is 18 per mille compared with only 5 per mille amongst their animistic compatriots. It has to be remembered, moreover, that many of the Indian Christians had already passed the school-going age at the time of their conversion, the proportion who are able to read and write must be far higher amongst those who were brought up as Christians.

The Sikhs come next in order of merit with one literate person in every fifteen, for males the ratio is one in ten and for females one in seventy. Here again while the proportion for males shows only a slight improvement that for females has doubled during the decade. The Hindus have almost as large a proportion of literate males per mille (101) as the Sikhs, but fewer literate females (8). The Mahomedans with only 69 and 4 per mille respectively stand at the bottom of the list except for the Animistic tribes of whom only 11 males and 1 female in a thousand of each sex are able to read and write. The low position of the Mahomedans is due largely to the fact that they are found chiefly in the north-west of India, where all classes are backward in respect of education and in Eastern Bengal where they consist mainly of local converts from a depressed class. In the United Provinces, Madras and the Central Provinces and Berar they stand above or on an equality with the Hindus and the same is the case in Bombay excluding Sind. In Sind the Mahomedan population is exceptionally illiterate, but in the rest of the Presidency it consists largely of traders, and education is much more widely diffused amongst them than amongst Hindus. The figures for Hindus again are a general average for all castes, high and low. It will be seen further on that some of the higher Hindu castes

are better educated than the Buddhists while others are even less so than the Animists.

Increase of Literacy—The total number of literate persons has risen during the decade from 15.7 to 18.6 millions or by 18 per cent. The number of literate males has increased by 15 and that of literate females by 61 per cent. The proportion who are literate per thousand males has risen from 98 to 108 and the corresponding proportion for females from 7 to 10. If persons under 15 years of age be excluded the proportions are 138 and 149 for male and 8 and 13 for female. The great improvement in the proportion of literate females is most encouraging. It is true that too much stress should not be laid on this when the actual number is still so small but on the other hand it must be remembered that the rate of increase was equally great in the previous decade so that it has now been continuous for twenty years. The total number of females over 15 years of age who can read and write is now a million and a quarter compared with less than half a million twenty years ago.

Progress—Before leaving these statistics of schools and scholars we may glance briefly at the progress which they show is being made. The total number of scholars in all kinds of educational institutions in 1891 was only 3.7 millions. In 1901 it had risen to 4.4, and in 1911 to 6.3 millions. 17 per cent. of the population of school-going age were at school in 1912 as

compared with 14.8 per cent. in 1907. Between 1891 and 1911 the number of students in secondary schools and Arts Colleges has doubled, and the number in primary schools has increased by 67 per cent., the proportion ranging from 39 per cent. in Bombay to 204 per cent. in the United Provinces. Excluding Madras, where a school final examination has recently taken the place of the Matriculation or Entrance examination of the University the number of persons passing that examination has risen from 4,070 in 1891 to 10,512 in 1911. Including Madras the number who passed the Intermediate examination in Arts or Science has risen during the same period from 2,055 to 5,141 and that of those who obtained a degree in Arts, Science, Medicine or Law from 1,437 to 5,373. The general conclusion appears to be that while the general rate of progress is far greater than would appear from a comparison of the census returns of 1891 and 1911 it is most marked in respect of secondary education.

There was a continuous fall both in the number and the proportion of persons afflicted from 1881 to 1901 and this has now been followed by a move in the other direction. Though the proportion is smaller the number of the insane and the deaf-mute is now about the same as it was thirty years ago. The number of lepers and blind however is less by about a sixth than it then was.

Infirmities.

The total number of persons suffering from each infirmity at each of the last four censuses is shown in the following table—

Infirmity	Number afflicted			
	1911	1901	1891	1881
Insane	91,006 26	86,205 23	74,379 27	81,132 35
Deaf-mutes	100,891 84	163,168 52	186,361 75	197,216 86
Blind	443,663 142	354,104 121	458,463 167	326,748 239
Lepers	109,094 35	97,540 33	128,244 46	134,988 57
Total	838,444 267	670,817 228	866,822 315	937,063 407

NOTE.—The figures in heavier type represent the proportion per 100,000 of the population

Insanity—In respect of the prevalence of insanity India compares very favourably with European countries. According to the latest returns, the proportion of persons thus afflicted in England and Wales is 384 per hundred thousand of the population or fourteen times the proportion in India. This may be due partly to the fact that the English statistics include the weak-minded as well as those who are actively insane and to the greater completeness of the return in a country where the majority of the mentally afflicted are confined in asylums, but the main reason no doubt is to be found in the comparatively tranquil life of the native of India. It is well known that insanity increases with the spread of civilisation, owing to the greater

wear and tear of nerve tissues involved in the struggle for existence.

The total number of insane persons exceeds by 9 per cent that returned in 1891 but their proportion per hundred thousand of the population has fallen from 21 to 20. The decline is fairly general the chief exceptions being the United Provinces, the North-West Frontier Province and four Native States in the peninsular area. In the United Provinces the number of the insane per hundred thousand of the population has risen from 12 to 18. No satisfactory explanation of this large increase is forthcoming.

Deaf-Mutes—By deaf-mutism is meant the congenital want of the sense of hearing which, in the absence of special schools, such as are only

just beginning to appear in India, necessarily prevents the sufferer from learning to talk. Clear instructions were given to the enumerators to enter only persons who were congenitally afflicted. Some few, perhaps, may have been included in the returns who had lost the power of speech or hearing after birth, but the total number of such mistakes is now very small. In India as a whole 74 males and 53 females per hundred thousand are deaf and dumb from birth. These proportions are much the same as those obtaining in European countries.

Blindness.—In India as a whole fourteen persons in every ten thousand of the population are blind, as compared with from eight to nine in most European countries and in the United States of America. It is a matter of common observation that blindness is ordinarily far more common in tropical countries than in those with a temperate climate. It is however less common in India than in parts of Eastern Europe. In Russia, for instance, nineteen persons in every ten thousand are blind.

Lepers.—In India as a whole 51 males and 18 females per hundred thousand persons of each sex are lepers. Of the different provinces, Assam suffers most, then Burma, and then in order Bihar and Orissa, the Central Provinces and Berar, Madras, Bengal, Bombay, the United Provinces, the Punjab and the North West Frontier Province. In the two last mentioned provinces there are only 17 male and 8 female lepers per hundred thousand of each sex. The occurrence of leprosy is very local and its prevalence varies enormously within provincial boundaries.

The number of lepers has fallen since 1891 from 126 to 109 thousand, a drop of more than 13 per cent. When it is remembered that the number of persons suffering from the other three infirmities taken together has remained almost stationary it may be concluded that the decrease in the reported number of lepers is genuine and indicates a real diminution in the prevalence of

the disease. It is possible that this is partly the result of the improved material condition of the lower castes, amongst whom leprosy is most common, and of a higher standard of cleanliness. The greater efforts which have been made in recent years to house the lepers in asylums may also have helped to prevent the disease from spreading. The total number of asylums in India is now 78 and they contain some five thousand inmates or about 4.7 per cent of the total number of lepers. This may not seem much but it has to be remembered that the movement is still in its infancy and that progress has been very rapid in recent years. Complete statistics for 1901 are not readily available but it is known that in the two provinces of Bengal and Bihar and Orissa, the number of lepers in asylums was then only about half what it is now. The greater part of the credit for the provision of asylums for these unfortunate persons belongs to the Mission for Lepers in India and the East which receives liberal help from Government. Its latest report shows that there are 3,637 lepers in the forty asylums maintained by the Society.

The belief is growing that leprosy is communicated from one human being to another by some insect and two South African doctors have recently published papers implicating the bed bug (*Cimex lectularius*). If this theory be correct it is obvious that the segregation of lepers in asylums must reduce the number of foci of the disease, and to that extent prevent it from spreading. It is worthy of note that in many of the districts where the disease was most prevalent in 1891 there has since been a remarkable improvement. Chamba which in 1891 had 54 lepers in every ten thousand of its population now has only 15. In Birbhum the corresponding proportion has fallen from 85 to 18. In Bankura from 98 to 23. In Ruma 29 to 18. In Debra Dun from 20 to 11. In Garhwal from 17 to 10. In Birdwan from 22 to 14 and in North Arakan from 28 to 20.

OCCUPATIONS

Nowhere are the many points of difference in the local conditions of India as compared with those of western countries more marked than in respect of the functional distribution of the people. In England according to the returns for 1901 of every hundred actual workers, 53 are engaged in industrial pursuits, 14 in domestic service, 13 in trade and only 8 in agriculture whereas in India 71 per cent are engaged in pasture and agriculture and only 23 per cent in all other occupations combined. The preparation and supply of material substances afford a means of livelihood to 19 per cent of the population (actual workers of whom 12 per cent are employed in industries, 2 in transport and 5 in trade). The extraction of minerals supports only 2 persons per mille, the civil and military services support 14 the professions and liberal arts 16 and domestic service 18, persons per mille. The difference is due to the extraordinary expansion of trade and industry which has taken place in Western Europe during the last century in consequence of the discovery of the steam engine, and to the great improvement in means of transport and the use of mechanical power in factories of all kinds which have resulted therefrom. In Germany sixty years ago, the agricultural population was

very little less than it is at the present time in India. There are as we shall see further on indications that in the latter country also great changes are impending and it is not unlikely that as time goes on the functional distribution of the people will become less dissimilar from that now existing in Europe.

The village.—Until the recent introduction of western commodities such as machine-made cloth, kerosene oil, umbrellas and the like each village was provided with a complete equipment of artisans and menials, and was thus almost wholly self-supporting and independent. Its chamears skinned the dead cattle cured their hides and made the villagers' sandals and thongs. Local carpenters made their ploughs, local blacksmiths their shares, local potters their utensils for cooking and carrying water and local weavers their cotton clothing. Each village had its own oil pressers, its own washermen, and its own barbers and scavengers. Where this system was fully developed, the duties and remuneration of each group of artisans were fixed by custom and the caste rules strictly prohibited a man from entering into competition with another of the same caste. The barber, the washerman, the blacksmith, etc.,

all had their own definite circle within which they worked, and they received a regular yearly payment for their services, which often took the form of a prescriptive share of the harvest, apportioned to them when the crop had been reaped and brought to the threshing floor.

Village sufficiency declining.—Even in India proper, the village is no longer the self-contained industrial unit which it formerly was and many disintegrating influences are at work to break down the solidarity of village life. The rising spirit of individualism, which is the result of modern education and western influences, is impelling the classes who perform the humble functions in the economy of village life to aspire to higher and more dignified pursuit. There is also a tendency to replace the prescriptive yearly remuneration by payment for actual work done. In many parts for instance the village Chamar is no longer allowed the hides of dead cattle as his perquisite but receives instead a payment for removing the cattle and for skinning them, and the hides are then sold to a dealer by the owner of the animal. Improved means of communication have greatly stimulated migration and the consequent disruption of the village community and by facilitating and lowering the cost of transport of commodities, have created a tendency for industries to become localised. The extensive importation of cheap European pieces, goods and utensils and the establishment in India itself of numerous factories of the western type have more or less destroyed many village industries. The high prices of agricultural produce have also led many village artisans to abandon their hereditary craft in favour of agriculture. The extent to which this disintegration of the old village organisation is proceeding varies considerably in different parts. The change is most noticeable in the more advanced provinces whereas in comparatively backward tracts, like Central India and Rajputana, the old organisation remains almost intact.

Agriculture.—India is pre-eminently an agricultural country. Of its total population 72 per cent are engaged in pasture and agriculture, 68 per cent in ordinary cultivation and 3 per cent in market gardening, the growing of special products, forestry and the raising of farm stock and small animals. The 217 million persons supported by ordinary cultivation comprise nearly 8 million landlords, 16 million cultivators of their own or rented land over 41 million farm servants and field labourers and less than a million estate agents and managers and their employes.

On the average in the whole of India, every hundred cultivators employ 25 labourers, but the number varies in the main provinces from 21 in Assam, 10 in the Punjab, 15 in Bengal and 16 in the United Provinces to 27 in Burma, 33 in Bihar and Orissa, 40 in Madras, 41 in Bombay and 53 in the Central Provinces and Berar. These local variations appear to be independent alike of the fertility of the soil and of the density of population. The conclusion seems to be that the differences are due to social, rather than economic, conditions, and that those provinces have most field labourers which contain the largest proportion of the depressed castes who are hereditary agriculturalists.

Of the two million persons supported by the growing of special products rather more than half were returned to tea, coffee, cloches, indigo etc. plantations and the remainder in fruit, vegetable, betel vine, arecanut etc. growers. Of those in the former group nearly nine tenths were enumerated in the tea-gardens of Assam (875,000) and Bengal (248,000) and most of the remainder in the coffee, tea, rubber and other plantations of Southern India.

Of the 16 persons per mille who were classed under Raising of farm stock nearly four fifths were herdsmen, shepherds, and goatherds, rather more than one-seventh were cattle and buffalo-breeders and keepers and one-eleventh sheep, goat and pig breeders.

Fishing and Hunting.—In the whole of India about 2 million persons or 6 per mille subsist by fishing and hunting. Of these, all but a small fraction are fishermen. About half the total number are found in the two provinces of Bengal (644,000) and Madras (318,000). The number who live by this occupation is exceptionally small in the United Provinces (38,000) and Punjab (10,000). The Punjab Superintendent says that owing to the destruction of immature fish and fry and the obstruction of the free passage of fish to their spawning grounds the five thousand odd miles of large rivers and major canals in his Province probably produce less food than an equal volume of water in any other part of the world. The sea fisheries of India though now known to be very valuable, are at present but little exploited.

Mines.—In the whole of India only 690,000 persons or 17 in every ten thousand are supported by the extraction of minerals. Coal mines and petroleum wells account for about half the total number (277,000). The coal fields of Bihar and Orissa support 127,000 persons and those of Bengal 115,000. In the Manbhum district which contains the Jharia, and part of the Raniganj coal field, 111,000 persons or 7 per cent of the inhabitants are supported by work in the collieries. Though the Raniganj coal field was discovered as far back as 1774 many years elapsed before much use was made of the discovery. In 1840 the total quantity of coal sent to Calcutta was only 36,000 tons. It rose to 220,000 tons in 1858 and to six million tons in 1901. Since then the growth has been very rapid. The output in 1911 from the coal mines of Bengal and Bihar and Orissa exceeded eleven million tons. In the same year the total yield for all India was twelve million tons. Of the latter quantity nearly one million tons were exported and four million were used by the railways. The total output however is still trivial compared with that of the United Kingdom which amounted in 1911 to 272 million tons. Most of the persons employed in the mines of Bengal and Bihar and Orissa are aboriginal or quasi-aboriginal, about half are Bauris and Santals, and many of the remainder belong to the Bhuiya, Chamar or Mochi Kora, Rajwar, Domah and Musahar castes. The great majority are recruited locally. The coal mines of Hyderabad, Assam, the Central Provinces and Berar and the Punjab support between them only about 27,000 persons.

Metals.—Of the 98,000 persons supported by mining for metals, more than half were returned

in the Mysore State, and of these the great majority were employed in the gold mines of Kolar, where for some years past the value of the gold produced has been about £2,000,000 per annum. The mines in the Central Provinces and Berar which support 21,000 persons are principally for the extraction of manganese. The mining of this ore was greatly fostered by the Japanese War which caused Russia to discontinue her exports of it for the time. There has since been a period of depression which seems now to have come to an end. Manganese is extracted elsewhere also, e.g. in Mysore and Madras. In Burma tin and lead are extracted as well as silver and wolfram in small quantities. Iron ore is worked in various places but chiefly in Mawbrhanj which supplies the raw material for Messrs Tata and Company's ironworks at Sakchi.

Of the 75,000 persons supported by work in quarries and mines for non-metallic minerals other than coal and salt, two-fifths were enumerated in Bombay where the quarrying of stone and limestone is an important business chiefly in the neighbourhood of Bombay city. In Bihar and Orissa and Madras mica mining is of some importance.

The extraction of salt and saltpetre supports 78,000 persons. Nearly a third of the total number are found in Bihar and Orissa where the Nuliyas are still largely employed in digging out and refining saltpetre. This industry is carried on also in the Punjab. Rock salt is mined in the same province and in Rajasthan.

The total number of persons employed in the extraction of minerals has risen during the decade from 236 to 317 thousand. The most noticeable increase is in coal mines and petroleum wells which embrace nearly thrice as many persons as in 1901. The bulk of the increase has occurred in Bengal and Bihar and Orissa, but it is to be noted that Hyderabad and the Central Provinces and Berar which now contribute about 12,000 persons to this group gave practically none ten years previously. Miners for metals are 4 times as numerous as they were in 1901.

Industries.—Of the 33.3 million persons dependent on industrial occupations, nearly one-fourth or 2.6 per cent. of the total population, are supported by textile industries. Of these, the most important from a numerical point of view are industries connected with cotton. The number of persons supported by cotton spinning, sizing and weaving is close on 6 millions, and another half million are employed in ginning, cleaning and pressing the raw material. The proportion of the population supported by cotton spinning, sizing and weaving is 87 per mille in the Punjab, 29 in Bombay and Rajasthan, 27 in Madras, 22 in the Central Provinces and Berar and 18 in the United Provinces. In Burma, Bihar and Orissa, Bengal and Assam it is much smaller ranging only from 8 to 11 per mille. Nearly two-fifths of a million persons are supported by rope, twine and string making and more than a third of a million by jute spinning, weaving and weaving. Other important textile industries are wool spinning and weaving, silk spinning and weaving, and dyeing and printing, etc., each of which supports from a quarter to a third of a million persons. It is clear there-

fore that so far as India is concerned, in spite of the growing number of cotton mills in the Bombay Presidency and elsewhere, the hand industry still to a great extent, holds its own. Only 13,000 persons are employed in silk spinning and weaving factories, 7,000 in woollen factories including those for the making of carpets and even smaller numbers in other factories of this class. Some of these textile industries are very local. Those connected with jute are practically confined to Bengal, in which province nine-tenths of the persons supported by them were enumerated. More than half the persons dependent on rope, twine and string making and on working in other fibres chiefly cotton and palm-leaf fibre were enumerated in Madras and the Native States and a quarter of those supported by wool industries in Hyderabad. Half the silk spinners and weavers are found in two provinces, Bengal and Madras. The dyeing, bleaching and printing of textiles and lace, crapes and similar industries are almost unknown in Assam, Bengal, Burma and the Central Provinces and Berar.

Growth of Industry.—As compared with 1901 there has been a decrease of 6.1 per cent. in the number of persons supported by textile industries. This is due mainly to the almost complete extinction of cotton spinning by hand. Weaving by hand has also suffered severely from the competition of goods made by machinery both in Europe and in this country. There has been a large increase in the number of Indian cotton mills but as the output per head in factories is far greater than that from hand looms the addition of a given number of factory hands involves the displacement of a far larger number of hand workers.

Hides.—As compared with 1901 a large decline in the number returned as general workers in hides is partly compensated for by an increase in shoe, boot and sandal makers. In the two heads taken together there has been a drop of about 6 per cent. During the same period the number of hide dealers has more than doubled. Owing to the growing demand for hides in Europe and America and the resulting high prices the export trade in hides has been greatly stimulated. The local cobbler, on the other hand, having to pay more for his raw material and feeling the increasing competition of machine-made goods has been tempted to abandon his hereditary craft for some other means of livelihood, such as agriculture or work in factories of various kinds.

Woodworkers.—Wood cutting and working and basket making support 2.5 and 1.3 million persons, respectively or 8.8 million in all. The number of factories devoted to these industries is still inconsiderable. Saw mills and timber yards each employ some 12,000 persons and carpentry works about 5,000. There is only one cane factory with 46 employees.

Metal workers.—The workers in metals are only about half as numerous as those in wood and cane. About three-quarters of the persons in this order are general workers in iron and one-seventh are workers in brass, copper and bell metal.

The total number of persons dependent on metal industries shows a decline of 6.6 per cent. as compared with 1901.

Earthenware.—The manufacture of glass, bricks, and earthenware supports in all 2.2 mil-

on persons. Seven-eighths of these are the ordinary village potters who make the various earthenware utensils for cooking and storing water which are required by the poorer classes as well as tiles, rims for wells and the like. In most parts of India the potter like the carpenter oil-presser blacksmith and cobbler is found in practically every village.

Chemicals.—In a country like India, whose economic development is still backward it is not to be expected that a large number of persons should be engaged in industries connected with chemical products. The total number returned as supported by these industries exceeds a million but it shrinks to less than 100,000 if we exclude manufacture and refining of vegetable and mineral oils. The 1.1 million persons included in this group are almost entirely village artisans who extract oil from mustard, linseed, etc. grown by their fellow villagers.

Food Industries.—Of the 8.7 million persons supported by food industries the great majority follow occupations of a very primitive type. Rice pounders and huskers and flour grinders number 1.6 million, grain parchers etc. 0.6 million and toddy drawers about the same. There are 352,000 butchers, 281,000 sweetmeat makers etc. and 97,000 bakers and biscuit makers. The other five heads of the scheme contain between them only 227,000 persons. The principal factories in connection with food industries are flour and rice mills which employ 42,000 persons, sugar factories 8,000, opium, gaoja and tobacco factories 7,000 and breweries 5,000.

Dress.—In all 7.8 million persons are supported by industries of dress and the toilet. Of these 1.3 millions are grouped under the head tailors, milliners, dressmakers etc. and 2.1 million under each of the heads (a) shoe, boot and valise makers, (b) washermen, cleaners and dyers and (c) barbers, hair-dressers and wig makers.

Transport.—Transport supports about five million persons, or 16 per mille of the population, viz. transport by water one million, transport by road 2.8 million, transport by rail one million, and the post, telegraph and telephone services 0.2 million. Transport by water about three-fifths are owners of country boats and their boatmen, nearly one-sixth are employed on inland steamers and ocean going vessels of all kinds, one-sixth are engaged in the construction and maintenance of canals and one-twentieth in the management and upkeep of harbours. Transport by road includes one million carters and cart-owners, more than half a million porters and messengers and considerably less than that number of owners and drivers of pack animals. Palki owners and bearers number 202,000 and persons engaged on road construction and maintenance 663,000.

Trade.—The number of persons dependent on trade for their livelihood is 17.8 millions or 6 per cent of the population. Of these more than half are supported by trade in food stuffs including 2.9 million grocers and sellers of vegetable oil, salt and other condiments who are for the most part the petty village shop-keepers commonly known as salt and oil sellers. 2.2 million grain and pulse dealers, 1.6 million betel leaf, vegetable and fruit sellers and nearly a million fish vendors. Trade in textiles is the

next most important item, supporting 4 per mille of the population. In connection with these figures, it is necessary to draw attention to the great difference which exists between the economic conditions of India and those of Europe. In Europe the seller is almost invariably a middleman whereas in India he is usually the maker of the article and is thus classified under the industrial and not the commercial head.

Professions.—The public administration and the liberal arts support 10.9 million persons or 35 per mille, namely public force 2.4 million, public administration 2.7 million, the professions and liberal arts 5.3 million and persons of independent means about half a million. The head Public force includes the Army (0.7 million), the Navy (less than 5,000) and the Police (1.6 million). India has practically no navy and her army is exceptionally small as compared with those of European countries. The number of persons actually employed in it is only 334,000 or 1 per mille of the population as compared with 4 per mille in England and 10 in Germany. The figures for Police include village watchmen and their families. The real number in this group is greater than that shown in the census tables, many of these village officials have other means of subsistence and the latter were sometimes shown as their principal occupation. Under the head Public administration are classed only those persons who are directly engaged in the executive and judicial administration and their establishments, whether employed directly under Government or under a municipality or other local body. Employees of Government and local bodies who have a specific occupation of their own such as doctors, printers, school masters, land surveyors etc. are shown under the special heads provided for these occupations. Of the 5.8 million persons supported by the professions and liberal arts, Religion accounts for rather more than half. Letters and the arts and sciences for more than a sixth, Instruction and Medicine for one-eighth and Law for one-eighteenth. The main head Religion contains 1.0 million priests, ministers etc., 0.7 million religious mendicants, 0.4 million pilgrim conductors, circumcisers and persons engaged in temples, burial or burning ground service, and 0.06 million catechists and other persons in church and mission service. Of Law more than half are lawyers, law agents and notaries and the remainder lawyers, clerks and petition writers. More than two-thirds of the persons under the Medical head are medical practitioners of various kinds, including dentists, the remainder are midwives, variators, compounders, nurses etc. The real number of persons who act as midwives must exceed considerably that shown in the census. This service is usually performed by the wife of the village washerman or other person of low caste and he must often have been returned under her husband's occupation. Nearly three-fourths of the persons classed under Letters and the arts and sciences are found in Music, composers and masters, players on musical instruments, singers, actors and dancers. The bulk of these are village drummers, whose services are invariably requisitioned on the occasion of marriages and religious festivals.

Factories.—There are in the whole of India 7,115 factories employing 2.1 million persons, or 7 per mille of the population. Of these per

sons, 810,000, or two-fifths of the total number are employed in the growing of special products, 554,000 in textile industries, 224,000 in mines, 185,000 in transport, 74,000 in food industries, 71,000 in metal industries, 49,000 in glass and earthenware industries, the same number in industries connected with chemical products and 45,000 in industries of luxury. Of the special products, tea (709,000 employees) is by far the most important. The number of tea gardens is not much more than double that of coffee plantations but twelve times as many persons are employed on them. The coffee plantations are four times as numerous as indigo concerns and employ twice as many labourers. Of the labourers on tea gardens, 70 per cent are returned by Assam and 27 per cent by Bengal, Madras, Mysor and Coorg contain between them practically all the indigo plantations, and Bihar and Orissa all the indigo factories. Of the persons working in mines 143,000 or 64 per cent are found in collieries eight-ninths of them being in the two provinces of Bihar and Orissa and Bengal. The number of persons engaged in gold mines is about one-fifth of the number in the coal mines, nine tenths of them were returned from Mysore. Of the 555,000 workers in textile industries, cotton mills contribute 908,000 and jute, hemp etc. 222,000. About two-thirds of the persons employed in cotton mills are found in the Bombay Presidency from 8 to 9 per cent in the Central Provinces and Berar and Madras, and about half this proportion in the United Provinces and Bengal. Jute mills are a monopoly of Bengal. Of the industries connected with transport railway workshops are by far the most important and afford employment to 90,000 persons or 79 per cent of the total number of persons engaged in these industries about one-fourth of them are found in Bengal and one-sixth in Bombay. Of the factories connected with food industries the most prominent are rice and flour mills. These employ 42,000 persons, of whom nearly three-fourths are engaged in the rice mills of Rangoon and other places in Burma.

Indians and Europeans.—The proportion of Indians to Europeans varies considerably in different classes of factories. The great majority of the larger concerns are financed by European capital and in such cases management or direction is generally European and the Indians shown under this head are engaged for the most part on supervision and clerical work. In Assam where 549 tea gardens are owned by Europeans and 60 by Indians there are 536 European and 73 Indian managers. In the coffee plantations of Madras and Mysore the same principle is apparent. The jute mills of Bengal are financed by European capital and the managers are all Europeans while in

Bombay where Indians own 110 of the cotton spinning and weaving mills and share 25 with Europeans and the latter own exclusively only 12, all but 43 of the managers are Indians. Sometimes the proportion of Europeans employed in supervision etc. varies with the character of the work. In the gold mines where the planning and control of the deep underground workings require a high degree of skill, Europeans outnumber Indians in the ratio of nearly 4 to 1 whereas in the collieries Indians are twelve times as numerous as Europeans.

Anglo-Indians.—Anglo-Indian is used at the census as the designation of the mixed race, descended usually from European fathers and Indian mothers which was formerly known as Eurasian. The total number of persons returned under this head excluding Feringhis is now 100,451 or 15 per cent more than in 1901. Anglo-Indians are most numerous in Madras (20,000) and Bengal (20,000). In the United Provinces, Bombay and Burma the number ranges from 8 to 11 thousand and in Bihar and Orissa the Central Provinces and Berar and the Punjab it is about 3,500. In the States and Agencies Anglo-Indians aggregate only 14,000 more than half being found in Mysore and Hyderabad. The increase in their number as compared with 1901 may be due partly to some Anglo-Indians having returned themselves under their new designation who would have claimed to be Europeans if Eurasian had been the only alternative and it is also perhaps due in part to a growing tendency amongst certain classes of Indian Christians to pass themselves off as Anglo-Indians. The Punjab Superintendent accounts in this way for the greater part of the increase of 42 per cent in the number returned as Anglo-Indians in his province. The proportional increase is also large in the United Provinces, Bombay, Burma, the Central Provinces and Berar and the Cochin State. Although Madras still has the largest number of Anglo-Indians the total is slightly less now than it was twenty years ago. Possibly this is because more careful enumeration has reduced the number of Indian Christians who thus returned themselves. The number of Anglo-Indians in Burma is remarkably large in view of the comparatively short time that has elapsed since it became a British possession and the strength of its European population. In this community there are 684 females per thousand males or slightly more than the corresponding proportions in the general population of India. More than half of the persons returned as Anglo-Indians are Roman Catholics and one-third are Anglicans, the number of Protestants, Baptists and Methodists ranges from 2 to 24 per cent.

Prices and Wages

In the section on the trade of India (p 248) brief reference is made to the course of prices and wages. The subject was further analysed in the official volume on Prices and Wages in India published during the year. The salient features of this report are indicated in the following extracts—

Before analysing the rise of prices in 1912 it is convenient to summarise the general movement of prices for the last two decades. The general level of wholesale prices is now 40 per cent higher than they were two decades ago. In 1912 the general average was 41 per cent higher than in the quinquennial 1890-94. If a smoothed average be taken say the quinquennial 1908-12 the rise was 37 per cent higher than during the quinquennial 1890-94. This rise has been especially marked since 1905. The increase in price has been greatest in the following classes of articles. Hides and skins, food grains, building materials and oilseeds, all of which have risen 40 per cent or more above the level of the period 1890-94. It is interesting also to note that the rise has been greater in some areas than in others. If the average of 1905 to 1912 be taken the rise has been above 80 per cent in the following areas as compared with base period of 1890-94: Karachi (43 per cent), Bundelkhand (in the United Provinces) (41 per cent), Sind (30 per cent), the Punjab East (36 per cent), Punjab West including North West Frontier Provinces (33 per cent), the United Provinces (38 per cent), the Central Provinces and Berar (35 per cent), Bengal (36 per cent), Madras (45 per cent), Deccan (86 per cent), (Chota Nagpur (33 per cent) and Gujarat (31 per cent).

On the other hand the rise has been comparatively small in Assam which is practically free from famine. The rise at the ports except Karachi has been less than in most of the up-country areas, but in comparing the ports with prices elsewhere it should be borne in mind that prices at the ports were generally higher than in other areas and that an equal rise in prices would result in a lower percentage of rise at the ports. The prices at the ports do not fluctuate within such wide limits as those in up-country areas such as Bundelkhand. The disparity also between the prices in good and bad years is remarkable, but with the linking up of markets by railways the variations between district and district are now very much less than they were formerly.

Upward Trend.—The marked upward tendency in the prices of Indian products in the world markets continued in 1912. Jute rose 15 per cent, cotton dal 14 per cent, glycerine and tobacco leaf 10 per cent each, poppy-seed and maize 9 per cent each, rice and gram 8 per cent each, barley 5 per cent, plough bullocks 5 per cent, wheat 4 per cent, flour wheat and rapeseed 3 per cent each and ragi 1 per cent.

while linseed fell 27 per cent, turmeric 17, bajra 8, sugar raw 6, sugar refined 3 and sheep 3 per cent.

Retail Advances.—There was also a general rise in the retail prices of food grains in India in 1912 as compared with 1911, the highest rise being in the prices of Arhar dal (10 per cent) and the lowest in Ragi (*Eleusine coracana*) (2 per cent). Bajra (*Pennisetum typhoides*) however shows a fall of 7 per cent and Javara (*Andropogon sorghum*) 1 per cent. The average fluctuation for all India in the prices of food grains was a rise of 3 per cent over the price of 1911. There was no fluctuation in the average price of maize and salt in India.

Wage-earners benefit.—The general conclusions show that the income of wage-earners has generally increased considerably faster than their cost of living which has resulted in a substantial improvement in the material condition of agricultural and general labourers and artisans who form the majority of the wage-earning class. Taking India as a whole the rise in real wages of general labourers has been greatest in the Punjab East, Agra Provinces, East and Bundelkhand. Next to this class the rise in real wages in India as a whole has been greatest in the case of village artisans. The rise has been highest in the Punjab East, Bundelkhand, Bihar and Agra Provinces, North and West. The third class in order of rise for all India is the agricultural labourer. The rise in real wages for this class has been above 50 per cent in the Punjab East, Agra Provinces, East and Chota Nagpur, between 40 and 50 per cent in Agra Provinces, North and West, Punjab West, Bundelkhand, Berar and Madras South. Next in order of importance come firstly the large scale employed in urban areas other than large cities, secondly general labourers in cities and thirdly the city artisans. In India as a whole the rise in real wages has been lowest for domestic servants both in cities and other urban areas and as a matter of fact in some circles there has been an actual fall in real wages. That is the rise in nominal wages has not been so great as that in the cost of living. To sum up it may be said that in India unlike most other countries the rise of prices has been fully met by a rise in wages in the case of skilled or unskilled labourers not employed in industries or on railways and industrial or railway labourers have, in some parts of India, secured an increase in wages commensurate with the rise in prices while in others the increase in wages has been smaller than the increase in their cost of living. It is, therefore, in these latter areas that industrial and railway labourers have not profited by the rise in prices and in this respect they are therefore similar to those on fixed incomes such as professional classes and persons who depend on the income solely from shares and other securities.

WAGES IN 1912 AND 1914

The statistics of wages of skilled and unskilled labour paid in districts of British India for 1913 are not now available as the half yearly returns of wages submitted by district officers have been discontinued and a quinquennial wage census the first of which was taken in 1911-12 was instituted in place of

these half yearly returns. From an examination of returns supplied by leading industries—cotton (Bombay), woollen (Dawnpore), jute (Bengal), paper (Bengal), rice (Bangalore), mining (Bengal) and brewing (Punjab), it has been found as shown below that there has been a general rise in wages in these industries of

3 per cent in January 1914 as compared with January 1913 --

Rates for January 1914 expressed in index numbers (rate for January 1913 = 100)

Industry--

Cotton	103
Wool	109
Jute	102
Paper	100
Rice	98
Mining (Coal)	97
Brewing	108
General average	103

The greatest rise is a rise of 9 per cent each in the cotton industry in Bombay and in the woollen mills in Upper India. The inefficiency of operatives in the cotton factories in Bombay has been a serious hindrance to the

industry and is due to the great demand for unskilled labour elsewhere chiefly in the Public Works Department and at the Docks and also to such root factors over long periods as plague etc. which arrest the natural growth of the population at a time of considerable industrial expansion. The jute industry shows a rise of 2 per cent. In the early part of the season labour was fairly plentiful. In the beginning of the hot weather the jute mills started a five-day week and the exodus of labourers, especially the weaver class to their country homes was in consequence even larger than in previous years. The paper industry in Banaral records no change while the coal industry shows a fall of 3 per cent. The rice milling industry in Rangoon also shows a slight fall of 2 per cent. There was no material change in tea garden where labour conditions remained on the whole the same as in previous year. The table below gives the rates for the past three years for different class of wage-earners in the chief industries --

Average rates of wages paid in selected industries

Industries	Per	1912	1913	1914
		Rs a p	Rs a p	Rs a p
(1) Cotton	Month	16 4	18 10	17 3 4
(2) Wool		16 9 0	16 9 7	17 14 9
(3) Paper		15 9 0	19 12 0	19 12 0
(4) Rice		11 12 0	11 2 0	11 2 0
(5) Brewing		16 2 0	16 1 6	16 14 11
(6) Jute	Week	3 6 0	3 12 10	3 14 3
(7) Mining (Coal)	Day	0 6 0	0 6 11	0 6 8
(8) Tea	Month	4 15 3	4 12 8	5 0
	Act coolies			
	Non act coolies	4 1 0	4 1 3	4 3 7
	Average	4 6 9	4 5 11	4 8 8

The importance of these industries may be gauged from the statistics of the last census (1911) which show that on the date of the census there were 704 000 employed on tea gardens 808 000 in cotton mills 228 000 in other textile industries and 149 000 in collieries. The rise in the wages of industrial labour has not been so great as in the case of agricultural labourers and village artisans. Money wages of industrial labourers however have over long periods increased in all industries and the rise has generally been greater than or equal to the rise in retail prices except in the tea, sugar and brewing industries.

Indian Education.

Indian Education is Unintelligible except through its history. Seen thus it affords the spectacle of a growth which, while to one it will appear as a huge blunder based on an initial error of judgment easily avoided to another stands out as a symbol of sincerity and honest endeavour on the part of a far-sighted race of rulers whose aim has been to guide a people alien in sentiments and prejudices into the channels of thought and attitudes best calculated to fit them for the needs of modern life and western ideals. A careful survey of the history of Indian Education will reveal the opposition between two tendencies whose struggle for supremacy was finally decided by Lord Macaulay's Minute of 1835. The beginnings of public education in India belong to a generation before Macaulay's regime. But it was not till Macaulay poured such emphatic contempt on Oriental learning that the Government in India in general definitely chose the *path of English education as the road to future progress*. Macaulay's Minute crystallises a point of view which had already some years before begun to impress itself upon the consciousness in this country. And when we find a statesman of the stature of Lord Curzon saying: "Ever since the cold breath of Macaulay's rhetoric passed over the field of the Indian languages and Indian text books the elementary education of the people in their own tongue has shrivelled and perished," we must not suppose that the regarded Macaulay as solely responsible for the trend which modern education has taken. It needs but a very cursory glance at the history of education in India under British rule to make clear once for all that education on Western lines was necessary as an answer to a growing demand which none but callous rulers could refuse, as also for the very forcible reason that without some kind of organised training of Indian in English composition and knowledge the practical work of administration which demands an ever increasing number of clerical assistance to meet the needs of steadily accumulating office work could never have been carried on. These two points give out the clue to the main features of Indian education (1) the claim of newly awakened races to be allowed to substitute for their own ill-used learning the progressive culture of modern

Western thought and (2) the obvious utility of a system whose object should be in part at least to assist Indians to a development of their capacities and sympathies on lines which might be of service in the actual government of the country. With reference to this last point the following consideration may be urged. The object of our great Universities and Public Schools in England is generally admitted to be something more than the satisfaction of purely theoretical interests. They are meant to be the training ground of valuable public servants. Let us once admit this to be a necessity in England. If then we recognise the impossibility of administering the great Indian Empire through Englishmen alone, there seems to be no adequate reason for refusing to apply the same methods to India. And as there is nothing in Indian History to show the particular value of any Oriental system of education as a training for public service, the logical conclusion is that Indians should be educated in English along Western lines. If an observer were confronted with a country ruled by foreign administrators backed up by a foreign army he would infer on a priori grounds that the said foreign power had included in its legislation a system of education analogous to its own—it is his opinion that it had no other than to suppose that it had adopted the sapient or ungenious policy of not educating its subjects at all. That would present itself as the only possible alternative. And the problem of Indian Education may be said to solve itself into a double which of the two policies is preferable, that of non education or that of English education. Yet the doubt itself has only to be stated to be solved and the task of explaining Indian education becomes in the end simply one of showing how the initial compromise on the part of British rulers of Oriental aims did not so much begin education as foster the desire for education until at last the Government undertook the duty of guiding such aspirations into what it conceived to be the right channel. To this end our aim will be to show (1) Indian education in the stage of conception and its birth somewhere about the time of Macaulay's Minute (2) its growth and organisation (3) its present situation.

THE BIRTH OF INDIAN EDUCATION

The seeds of an interest in education may be said to have been sown by the foundation of the Calcutta Madras and Benares Colleges in 1781 and the Sanskrit College at Benares by Jonathan Duncan in 1791. Whatever interest there was in learning during this period was directed solely to the encouragement of Sanskrit and Arabic. Even the Act of 1813 which set apart a lakh of rupees for the revival and promotion of literature and the encouragement of learned natives of India and for the introduction and promotion of a knowledge of the sciences in the British territories of India was interpreted as a scheme for the encouragement of Sanskrit and Arabic and it was not till the famous meeting of the Gov-

ernment General's Council in 1835 that it was definitely discussed whether it might not accord with the meaning of the Act of 1813 to use at least part of the money for the encouragement of the study of English. But other forces had been already at work. In 1817 the Hindu College was opened at Calcutta with the express object of instructing "the sons of Hindus in the European and Asiatic languages and sciences, English being a kind of the most prominent position. The moving spirit which led to the foundation of this institution was Raja Ram Mohan Roy who in the words of Mr. H. R. James in his important book *Education and Statesmanship in India*, incarnates the impulse which led thinking

Indians to desire and work for English Education." From that time forward the far-sighted observer must have realised that a movement had begun which whether we would or not we could no longer check. The same phenomenon was witnessed on the Western side of India and Mountstuart Elphinstone's Minute on Education dated March 1834 deserves particular notice for its recognition of the necessity of introducing a knowledge of European sciences into any scheme of education as well as for its wise restraint in dealing with Oriental learning. For though his declared object was to establish English schools and encourage the natives in the pursuit of European sciences, he repudiates the idea that the purely Hindu side of education should be totally abandoned. In his own words: "It would surely be a preposterous way of adding to the intellectual treasures of a nation to begin by the destruction of its indigenous literature and I cannot but think that the future attainments of the natives will be increased in extent

as well as in variety by being, as it were, engrafted on their own previous knowledge and imbued with their own original and peculiar character. Elphinstone's interest in educational matters was sufficiently appreciated by the citizens of Bombay who in 1827 the year of his departure, resolved to found two professorships in his memory to be held by gentlemen from Great Britain until the happy period when natives shall be fully competent to hold them. It is sufficiently clear not only that an interest had been aroused in English education but that some attempts had been made to meet the interest before 1835, though Lord Curzon may have given a just estimate of the situation at the Educational Conference of Simla in 1901 when he said: "Education there was but it was narrow in its range, exclusive and spasmodic in its application, religious rather than secular, theoretical rather than utilitarian in character. Above all, it wholly lacked any scientific organisation and it was confined to a single sex."

GROWTH AND ORGANISATION OF ENGLISH

EDUCATION IN INDIA.

It is, of course, just the possibility of angrafting modern western knowledge on the old Indian stocks that is open to doubt. Herein lies the significance of Macaulay's famous tirade on Oriental science which deserves quoting for the contrast it forms to the juster estimate of Mountstuart Elphinstone. It is perhaps more offensive to Indian ears for the element of truth it contains, though the entirely unsympathetic form in which he expresses himself is a sufficient stumbling block in itself. The question before us, he writes, is simply whether when it is in our power to teach this language—English—we shall teach languages in which by universal confession, there are no books on any subject to be compared to our own; whether, when we can teach European science we shall teach systems which, by universal confession, wherever they differ from those of Europe differ for the worse; and whether when we patronise second philosophy and true history we shall countenance at the public expense medical doctrines which would disgrace an English farrier, astronomy which would move laughter in the girls at an English boarding-school, history abounding with kings thirty feet high and regius thirty thousand years long, and geography made up of seas of treacle and seas of butter. The reiterated phrase by universal confession is beyond the mark, but Macaulay was surely right in his valuation of ancient Hindu science as science or history as history. Where he was surely wrong was in his implied condemnation of Indian literature as literature. From that point of view you might just as well condemn Homer for his mythology (as indeed Plato does in the Republic). Where again, he was possibly wrong was in his vehement antipathy to the view that, if modern science is to be taught, it should be taught through the medium of Indian languages. Yet here too he represents an attitude which was fast becoming that of enlightened Indians. And, if there were no other reasons, the ultimate ability to the Government itself of Indians trained in the Eng-

lish language is a strong argument in his favour. This utilitarian motive for English education lurks often unconscious and unrecognised under the whole progress of Indian education—to its detriment as some think for the great charge against the modern Indian student is that he regards a career in Government schools and colleges not so much as education and an end in itself as a mere means to more or less lucrative employment in Government offices. Be that as it may we shall probably not be far wrong in saying that the famous Minute of 1835 was in spirit right but in expression wrong. Its result was that the Government of Lord William Bentinck made the following momentous Resolution: "His Lordship in Council is of opinion that the great object of the British Government ought to be the promotion of European literature and science among the natives of India, and that all the funds appropriated for the purposes of education would be best employed on English education alone."

Universities Established

Macaulay's period of service on the Committee of Public Instruction (first formed in 1824) gave considerable impetus to the movement he advocated, as figures will show. Whereas the Committee had no more than fourteen institutions under its control in Bengal when he joined it this number was more than trebled by the end of 1837 the larger part being Anglo-Vernacular schools or colleges. Progress continued along these lines in Bengal, and more slowly in other Presidencies, until in 1832 the numbers under instruction in Government colleges amounted to 25,872 of which 9,893 were for English education (James p. 34). The increase of numbers must have been materially affected by a Resolution of Lord Hardinge's Government in 1844 in which it was stated that in the selection of candidates for public employment preference would be given to those who had been educated in the newly fashioned type of institution. An adherence of the old-fashioned intellectual ideal of college

Statement of Educational Progress in INDIA.

	1906-07	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles						
Population						
{ Male	1 144 106	1 145 728	1 152 894	1 183 518	1 187 680	1 137 686
{ Female	123 249 538	123 699 630	140 113 723	130 408 551	130 402 188	130 302 188
Total Population	119 570 460	119 017 958	144 706 368	124 960 002	124 801 038	124 601 038
Public Institutions for Males	242 820 899	241 717 588	254 820 516	255 868 553	255 153 621	256 153 581
Number of arts colleges	191	148	128	180	128	138
Number of high schools*	1 174	1 180	1 208	1 210	1 278	1 189
Number of primary schools	108 339	107 483	108 144	110 602	118 955	116 680
Male Scholars in Public Institutions						
In arts colleges	18 788	28 912	24 806	26 360	32 081	38 886
In high schools	315 906	314 847	364 704	800 881	428 182	468 886
In primary schools	3 780 403	3 888 071	3 936 419	4 202 631	4 428 531	4 600 406
Percentage of male scholars in public institutions to male population of school-going age†	25.15	26.2	25.3†	26.8	25.4	25.8
Public Institutions for Females						
Number of arts colleges	7	8	9	10	10	11
Number of high schools*	124	125	180	126	144	157
Number of primary schools	11 511	11 753	12 027	12 886	13 694	14 722
Female Scholars in Public Institutions						
In arts colleges	186	217	244	279	318	383
In high schools	11 654	14 257	14 864	16 884	18 515	21 046
In primary schools	681 908	668 076	669 471	785 611	832 982	909 596
Percentage of female scholars in public institutions to female population of school-going age†	4.0	4.4	4.2†	4.7	5.0	5.4
TOTAL SCHOLARS in public institutions						
{ Male	4 650 134	4 826 564	4 980 084	5 258 065	5 569 441	5 823 216
{ Female	720 342	761 880	783 946	875 690	928 988	1 019 631
Total	5 370 476	5 588 444	5 764 030	6 133 755	6 498 429	6 842 847
TOTAL SCHOLARS (both male and female) in all institutions	5 972 204	6 203 805	6 545 382	6 798 721	7 140 602	7 518 147
Expenditure (in thousands of rupees)						
From provincial revenues	2 12 42	2 34 30	2 42 06	2 63 59	3 99 25	3 64 54
From local funds	1 17 24	1 02 24	1 00 82	1 05 80	1 23 08	1 47 91
From municipal funds	24 87	24 50	28 00	29 84	33 28	37 67
Total Expenditure from public funds	5 53 98	5 61 10	5 70 40	5 99 23	5 55 61	6 50 11
From fees	1 69 87	1 80 42	1 80 67	2 19 08	2 40 62	2 66 64
From other sources	1 35 18	1 40 24	1 47 01	1 61 61	1 65 96	1 88 49
GRAND TOTAL OF EXPENDITURE	6 68 43	6 86 76	7 18 68	7 80 83	8 08 09	10 08 24

* High schools include vocational high schools also in some provinces.

† The percentages for 1910-11 being reckoned on the new Census figures are slightly misleading for purposes of comparison with previous years. This remark applies throughout all the Tables.

It would see in this Resolution a fatal concession to the utilitarian view and a fatal misdirection of public attitude towards education.

Meanwhile educational institutions had so multiplied throughout India that the time was becoming ripe for the decisions arrived at in Sir Charles Wood's Despatch of 1854. The old idea had been that the education imparted to the higher classes of society would gradually filter down to the lower classes. How little true it is that education could ever filter down to the masses in India by its own percolative properties is evident enough even now when our wide system of schools entirely fails to touch the majority of India's population. The Despatch of 1854 marks a departure from the filtration policy and a recognition on the part of an enlightened Government of educational duties, even towards sections of the population who had never entertained the idea of Government obligations in their direction. The result of the Despatch was the formation of Departments of Public Instruction on lines which do not differ at all essentially from Departments of Public Instruction of the present day. They represent a direct desertion of the laissez faire or filtration policy and an attempt on the part of Government to combat the ignorance of the people which may be considered the greatest curse of the country. Another feature of the Despatch was an outline of a University system, which formed the basis of the scheme adopted in 1857 when Acts were passed for the incorporation of three Universities: one for Calcutta, one for Bombay and one for Madras. As Lord Curzon said, "The Indian Universities may be described as the first fruits of the broad and liberal policy of the Education Despatch of 1854." He might have gone further and said that the scheme outlined in it not only originated universities but contained suggestions for their proper conduct whose value has only recently been understood. In its proposal of a distinction between common degrees and "honours" degrees it anticipates the actual procedure of at least one University that of Bombay by nearly sixty years.

Private Agencies

The Despatch of 1854 and the orders based on it, together with later resolutions and modifications, organised education into something like the present system. Government took the whole thing into its own hands and established Universities, colleges, high schools and middle schools. Efforts were made to extend elementary education so as to reach the masses and also to establish a system of inspection with a view to guaranteeing the efficiency of private institutions which should be allowed grants-in-aid as well as Government institutions themselves. Expansion under control sums up the aims of the combined system of grants-in-aid and inspection. As Mr. James puts it, "Local management under Government inspection stimulated by grants-in-aid, was to supplement and finally, perhaps, in large measure, to supersede direct management by Government." (p. 48) The latter part of the sentence may have been the

inspiration of the Commission of 1882 appointed to inquire into the way in which the recommendations of the Despatch of 1854 had been carried out. The result of the Commission was to relax the control exercised by Government over education. Government's withdrawal was intended to refer only to secondary instruction. The idea was to encourage private enterprise in the founding of secondary schools. But though the recommendations of the Commission included much talk of conditions and cautions and of the necessity of maintaining a high standard, the addition of a further recommendation that the managers of aided schools and colleges be permitted they wished to charge less fees than Government schools of the same class led in the result to a general deterioration of standard. The recommendations of this Commission appear to some as a charter of inefficiency. They are the avenue to educational institutions run as a business proposition. Meanwhile perhaps the most creditable feature of the Commission's Report was its insistence on the importance of Primary Education and its recommendation that primary education be declared to be that part of the whole system of Public Instruction which possesses an almost exclusive claim on local funds set apart for education and a large claim on provincial revenues. The least creditable feature is its recommendation that preference be given to that system which regulates the aid given mainly according to the results of examination. To pay by results is wilfully to encourage the cramming institution.

Great Expansion

The period from 1882 to the beginning of the new century is one of phenomenal expansion. There was a general stampede for education, and no proper regard was paid to the standard or quality of the product. It is this period which it may deserve the opprobrium incurred by education in India. And it is the universities which stand out as the chief sinners. There can be no reasonable doubt that students were being turned out with degrees attached to their names who could not be regarded as educated from any respectable standpoint. As a man who is doubtful whether an act of his really is so praiseworthy as the general chorus of congratulation had led him to suppose, suddenly with tremors at the thought of the revision of opinion that is sure to follow if he turns out to have done wrong, feels certain of his error so our Governors and Chancellors and Vice-Chancellors of this period gradually arrived at the conviction that something was wrong with the seemingly excellent product of the Despatch of 1854 and the Commission of 1882. Criticism began from without, but finally it invaded the sphere of Convention addresses. At last in 1901 the Vice-Chancellor of the University of Calcutta made this statement. For the first time the Chancellor asks the University to consider the possibility of constitutional reform. In September of that year an educational conference was convened at Simla by the Viceroy Lord Curzon. In 1902 the Indian Universities Commission was appointed and in 1904 an Act was passed to amend the law relating to the Universities of British India.

Statement of Educational Progress in MADRAS

	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles						
Population						
{ Male						
{ Female						
Total Population						
Public Institutions for Males						
Number of arts colleges	32	30	131,866	142,481		34
Number of high schools	169	172	20,130,916	20,359,668		170
Number of primary schools	22,412	23,106	20,770,688	21,029,284		28,018
Males			40,923,351	41,418,030		
Public Institutions for Females						
Number of arts colleges	4,927	3,911	3,700	4,497	4,491	7,029
Number of high schools	69,149	72,673	69,543	71,934	77,551	85,844
Number of primary schools	689,817	739,937	700,894	829,331	840,493	962,035
Percentage of male scholars in public institutions	27.8	30.8	29.7	30.8	33.1	35.5
Percentage of female scholars in public institutions						
Total						
Public Institutions for Males						
Number of arts colleges	1	1	1	2	2	2
Number of high schools	32	31	32	33	32	35
Number of primary schools	862	888	900	1,162	1,281	1,449
Males						
Public Institutions for Females						
Number of arts colleges	38	37	32	46	56	66
Number of high schools	4,981	4,212	4,027	4,310	4,089	5,491
Number of primary schools	135,784	147,910	170,027	190,749	221,835	248,214
Percentage of female scholars in public institutions	5.8	0.2	0.1	0.6	7.4	8.3
Percentage of female scholars in public institutions						
Total						
Public Institutions for Males						
Number of arts colleges	813,056	870,506	806,701	947,799	1,011,763	1,085,348
Number of high schools	168,167	191,461	190,861	208,617	234,197	259,706
Number of primary schools	981,223	1,051,966	1,087,592	1,152,886	1,245,060	1,345,564
Males						
Public Institutions for Females						
Number of arts colleges	1,049,615	1,179,048	1,215,725	1,280,095	1,362,192	1,469,945
Number of high schools						
Number of primary schools						
Males						
Public Institutions for Females						
Number of arts colleges	2,779	30,07	43,16	44,22	53,29	65,69
Number of high schools	20,911	11,45	11,24	12,58	17,27	(a) 22,94
Number of primary schools	3,84	3,17	8,21	3,15	4,16	(b) 5,08
Percentage of male scholars in public institutions	62.54	53.69	57.61	59.65	79.62	86.38
Percentage of female scholars in public institutions	32.50	34.89	37.20	37.90	41.44	46.00
Percentage of scholars in public institutions	32.37	30.81	32.78	38.10	36.07	38.67
From other sources	1,7141	1,1930	1,2768	1,3665	1,5762	1,7959
GRAND TOTAL OF EXPENDITURE						

* Includes also vernacular high schools for girls.

(a) Includes provincial contribution of Rs 13,07,901

(b) Includes provincial contribution of Rs 1,62,669

UNIVERSITIES ACT AND PRESENT SITUATION

The Commission of 1882, which favoured the policy of withdrawing higher education from the control of Government within certain limits and of allowing colleges and secondary schools conducted by private enterprise to reduce their fees, though in many details it made admirable proposals, yet by its general policy led to a general inefficiency and lowering of standard in higher education. In some quarters it anticipated all that has hitherto been done. For example, in suggesting that there should be two sides in secondary schools, "one leading to the entrance examination of the Universities, the other of a more practical character, intended to fit youths for commercial and other non-literary pursuits, it still anticipates Government action by many years. The Universities Commission of 1902 proposed to make the School Final examination a preliminary test for certain professions and posts in Government service and to substitute it for the Matriculation as a general qualification, even, if possible, as a test of fitness to enter the University. The latest statement of Government policy (dated Feb. 1913) re-affirms and emphasises these proposals which are an attempt to enforce the suggestion of the Commission of 1882. But the general relaxation of Government control seemed to Lord Curzon the radical evil of his day.

New Senates

Not to speak of the lowering of efficiency consequent on the lowering of fees in schools and colleges by private enterprise, we may mention among the more glaring defects which Lord Curzon had to face the maladministration of the Universities due to the mistake of their composition. All kinds of people had crept into the Senates of Universities who from the true educational point of view had no business there. The numbers had become unwieldy so that it was impossible to get passed even necessary reforms. The progress of education was retarded and modern innovations simply ignored. As reconstituted the Universities have revised their regulations and though they have not ceased to be examining universities they have taken upon themselves the necessary function of inspecting the colleges affiliated to them. They have also received powers of becoming teaching bodies. Little has yet been done to make them that but it may be judged from utterances in their Senates that they are becoming increasingly conscious of their possibilities or duties in this direction. In the last Resolution on Education (Feb. 1913) it was decided that the principle of an examining and affiliating University must still be maintained. Nevertheless a movement is proceeding in the direction of new local teaching and residential Universities within each of the provinces in harmony with the best modern opinion as to the right road to educational efficiency. Under the present system it is no longer impossible to pass radical changes. The Senate of each University has been reduced to one hundred or less in number and the Act lays down that in the election of members of the Syndicate, the executive body in the University, a certain number of those actively engaged in educational work should be selected.

To quote from the Fifth Quinquennial Review the Colleges have defined rights of representation on the Syndicate, to this extent that among the elected members of the Syndicate a number not falling short by more than one of a majority must be heads or professors of colleges. One University has required by its regulations that a majority of the elected members of the Syndicate shall be heads or professors of Colleges. It is evident then that the working bodies in the Universities have been cleaned up and are now so constituted as to contain the obviously essential educational element.

Policy of 1913.

The influence of Lord Curzon on educational progress has been generally salutary. For though his reforms had the air of reaction and raised a general outcry in India—"the least that Lord Curzon was charged with was a deliberate attempt to throttle higher education in India" (Indian Unrest by Valentine Chirol)—it is now recognised by enlightened thinkers that all branches of education required careful review. Before any quantitative increase took place it was necessary to reform the qualitative basis. A glance at the work done as summarised by the last Quinquennial Review will show how the machinery has been cleaned. The Universities are now respectable secondary schools have been improved and placed under stricter conditions of recognition, attention, though insufficient, has been paid to the training of teachers in primary schools examinations have been simplified buildings improved, the pay of teachers raised the courses of studies revised and widened. In these circumstances the Government Resolution of 1913 was justified in its aims to extend educational institutions on every side. It proposed to double the number of primary schools (a scheme which may be regarded as a compromise between the policy of *masses* *versus* that of compulsory education) and to encourage the establishment of a greater number of secondary schools on the lines of private enterprise by increased grants on conditions of submission to Government inspection, recognition, and control. One of the most interesting features of the Resolution is Government's desire to develop the hostel system. In the words of the Resolution "The Government of India desire to see the hostel system develop until there is adequate residential accommodation attached to every college and secondary school in India. Altogether the Resolution of February 1913 ranks as a notable pronouncement, ranging as it does over every conceivable topic, from the Universities to what is often called Female Education, with a depth of insight and a readiness to face the most complex problems of finance and organisation that augurs well for educational progress. There is reason to hope that our educational system in India will stand out as one of the most remarkable achievements in the history of imperial politics.

University Organisations

These Universities are examining bodies with colleges affiliated to them. The Gover

Statement of Educational Progress in BOMBAY

	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles						
Population						
{ Male						
{ Female						
Total Population						
Public Institutions for Males						
Number of arts colleges						
Number of high schools						
Number of primary schools						
Male Scholars in Public Institutions						
In arts colleges						
In high schools						
In primary schools						
Percentage of male scholars in public institutions						
Percentage of male scholars in school-going age						
Public Institutions for Females						
Number of arts colleges						
Number of high schools						
Number of primary schools						
Female Scholars in Public Institutions						
In arts colleges						
In high schools						
In primary schools						
Percentage of female scholars in public institutions						
Percentage of female scholars in school-going age						
thence to female population of school-going age						
TOTAL SCHOLARS in public institutions						
{ Male						
{ Female						
Total						
TOTAL SCHOLARS (both male and female) in all institutions						
Expenditure (in thousands of rupees)						
From provincial revenues						
From local funds						
From Government funds						
Total Expenditure from public funds						
From other sources						
GRAND TOTAL OF EXPENDITURE						

non-General is the Chancellor of the University of Calcutta and the head of the provincial Government the Chancellor of each of the other Universities. The Vice-Chancellor is nominated by each head of Government. The executive body is the Syndicate which is now organised so as to contain a larger educational element. Over this body the Vice-Chancellor presides, all other members being elected by the various Faculties except the Director of Public Instruction who is a member *ex officio*. The secretarial work of all university business is done by an officer appointed by the Senate the Registrar. The legislative body is the Senate which is divided into faculties, a Faculty being a section of the Senate appointed

to control the work of a particular subject. The Faculties are in most cases those of Arts science law medicine and engineering. There is an oriental faculty in the Punjab University alone. Each of the main branches of study in a University is represented in addition by a Board of Studies, that is an advisory body whose duties are to look after the curriculum and recommend text books or books which represent the standard of knowledge required in the various examinations. The Senate as a whole consists of from 75 to 100 members the majority of whom are nominated by Government, the remainder being elected by the Senate or its faculties or by the body of graduates of the University.

UNIVERSITIES

Constitution.—There are in British India five Universities with the following territorial limits (Sixth Quinquennial Review p. 207).—

University	Territorial Limits	
	Province (including any Native State under its political control and any foreign possession included within its boundaries)	Native State or Colony
Calcutta Madras	Bengal Burma Assam Bihar and Orissa Madras and Coorg	Hyderabad Mysore and Ceylon
Bombay Allahabad	Bombay and Sind United Provinces of Agra and Oudh, the Central Provinces (including Bahr) and Ajmer Merwara	The States included in the Rajputana and Central India Agencies
Punjab	Punjab, North West Frontier Province and British Baluchistan.	Kashmir and Baluchistan.

Courses and Examinations

The Matriculation Examination is the test for entrance to a University. After matriculation, if the student decides to graduate in Arts he must take a four years course. After two years he takes the Intermediate Examination. After another two years he may appear for the Examination for Bachelor of Arts. The regulations with regard to Honours vary in the different Universities. In Calcutta the honours and pass courses are separate. In Bombay the honours student takes in addition to the pass three extra papers. In Madras the honours course is taken the year after and in addition to the pass course. The degree of Master of Arts requires a further examination (except in Madras) which is taken one or two years after the examination for the B. A. degree. If the student elects to take science his course is one of four years. In some Universities he receives the degree of B. Sc. In others a separate degree of B. Sc. Where the separation between Arts and Science is clearly defined, the student takes the Inter Examination in Science two years after Matriculation, and two years after this examination appears for that of B.Sc. Those students who choose a professional course *eg* agri-

culture, medicine or engineering must in most cases first attend an Arts College for one or two years before proceeding to the professional college. The student who has graduated as Bachelor at a University can graduate as a Bachelor of Law in two years.

The annual output of graduates is reckoned in the Sixth Quinquennial Review at 2742 and the proportion of students who graduate in the four main faculties is given as follows —

Arts	85%
Science	20%
Medicine	9%
Engineering	4%

But it should be remembered that in some universities the Arts degree is given for Science subjects.

Dacca University

One of the most interesting features of the last Government Resolution on education is the decision to found a teaching and residential university at Dacca. Government also profess themselves willing to sanction under certain

Statement of Educational Progress in BENGAL

	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles						
Population	No. Males 20,675,028 " Females 20,067,560 Total Population 40,742,588	124,492 28,124,820 28,043,019 52,669,869	124,492 27,436,180 27,387,103 54,823,283	No change	78,699 23,365,225 23,117,652 46,482,877	No change
Public Institutions for Males						
Number of arts colleges	20	29	29		31	31
Number of high schools	407	399	399		532	570
Number of primary schools	1,150	3,201	3,437		23,107	27,470
Male Scholars in Public Institutions						
In arts colleges	4,613	7,107	8,255		12,791	14,683
In high schools	6,452	87,172	94,844		103,096	132,648
In primary schools	898,939	967,104	997,953		998,110	982,610
Percentage of male scholars in public institutions to male population of school-going age	30.2	32.0	31.4		40.9	41.4
Public Institutions for Females						
Number of arts colleges	2	3	3		3	3
Number of high schools	17	17	21		21	26
Number of primary schools	3,029	66	3,052		6,098	7,083
Female Scholars in Public Institutions						
In arts colleges	42	47	63		105	113
In high schools	1,074	2,048	2,901		8,090	3,658
In primary schools	130,694	145,231	146,223		205,783	210,137
Percentage of female scholars in public institutions to female population of school-going age	3.9	4.4	4.2		6.8	7.1
TOTAL SCHOLARS in public institutions	1,098,718 139,562 1,238,280	1,234,011 16,505 1,250,516	1,290,621 173,207 1,463,828		1,483,452 227,513 1,662,795	1,432,813 285,434 1,718,247
TOTAL SCHOLARS (both male and female) in all institutions	1,421,389	1,475,776	1,518,439		1,718,623	1,747,608
Expenditure (in thousands of rupees)						
From provincial revenues	40.70	49.00	50.16		64.87	64.99
From local funds	11.56	11.36	11.64		15.88	23.28
From municipal funds	1.32	1.41	1.58		1.70	1.70
Total Expenditure from public funds	53.58	61.76	63.38		82.45	89.97
From fees	2,271	56,110	61,020		87,888	93,450
From other sources	29.20	32.00	36.31		38.04	38.35
GRAND TOTAL OF EXPENDITURE	1,44.08	1,50.86	1,60.71		2,02.71	2,20.77

conditions the establishment of similar and similar as occasion may demand. An act co-ordinating such the University at Benares has been passed by the Imperial Council this year. These experiments may be regarded as an attempt to get away from the affiliating and examining type of University and to conform to that ideal of a University which requires it not only to confer degrees but to supervise the training of intellect and character as closely as possible. A University of this type will turn out graduates who may be trusted to have in their degree satisfactory credentials about their general character and ability. Under the existing system the University turns out graduates of whom it knows absolutely nothing beyond what it learns in examinations.

Colleges

Affiliated to the University are colleges which the University have power to inspect and regulate. In 1913-14, the number of colleges affiliated to the Indian Universities is given as 196 of which 143 are Arts Colleges, 21 Law Colleges, four Medical, four Engineering, three Agricultural, one Commercial and thirteen Teachers Training Colleges. The number of students in Arts Colleges was 39,189 and in all Colleges 47,259. All colleges whether under Government or private management are inspected by the Universities. Colleges receive financial aid from public funds both provincial and Imperial. Under the Universities Act the Universities are empowered to make regulations about the residence of college students. The rule now is that students who do not reside with parent or guardian must reside either in a boarding house under supervision or in an approved lodging house. The result has been a larger provision of college residential buildings. The hostel system is definitely encouraged by Government and in the latest Resolution (Feb 1913) Government express the desire to see the hostel system extended to all colleges and secondary schools. The number of female students was 353.

Schools

Government policy with regard to schools has been to provide a small number of institutions which are to be regarded as models for private enterprise. At the same time they insist on a careful inspection of all schools, whether they are run by municipalities or local boards by private individuals or by missionary or other societies. Private enterprise is encouraged by an extensive system of grants-in-aid, which are dependent on the efficiency of the school and its expenditure on teachers and general equipment.

Secondary Schools

There is some difficulty in the classification of schools, secondary and primary. Here the Fifth Quinquennial Review is followed as issuing from the Director General of Education. Secondary schools are divided into English and Vernacular in the first place. In the former English is a subject of instruction in the lower part and the medium of instruction in the upper part of the school. In the latter English is not taught in any way. In the second place these schools are divid-

ed into high and middle schools. In the former instruction in its highest branches leads to the standard of matriculation for a University. In the latter instruction is carried to a standard within three years of that in high schools. Thus there are four kinds of schools, English, High and Middle, and Vernacular High and Middle. Of these the first two are often called Anglo-Vernacular as they combine instruction through the medium of the vernacular with instruction through the medium of English. But as there are so small a number of vernacular high schools that they are hardly worth including in a classification and further as the vernacular middle schools are simply the high school stage of vernacular education and should therefore be included in the primary school system, the Review regards the distinction between English High and English Middle schools as a satisfactory classification. The distinction between these two is slight. A middle school in the words of the Review "is nothing more than a high school with two or three top classes cut off." There are now two examinations which a boy may take at the end of his school career—(1) The Matriculation examination, (2) the School Final. In order to prevent the evils arising from setting a University examination as a test for a school education Government now insist on the School Final as a test for certain professions and posts in Government Service. The latest Government Resolution lays particular stress on this point.

Primary Schools.

Here again there is a difficulty of classification owing to the different systems prevailing in the different provinces. However they are divided generally according to grade into lower primary and upper primary. Middle vernacular schools, classed usually among secondary schools, are really only superior primary schools and bear little relation to the systems prevailing in secondary schools. Primary schools, as the Review points out have been defined as the education of the masses through the vernacular. If the medium of instruction be taken as the differentiation, then clearly middle vernacular schools ought to be classed as primary. In 1913-14 the number of these schools was 118,650. In the Government Resolution of Feb 1913 is found the following statement: "It is the desire and hope of the Government of India to see in the not distant future some 91,000 primary public schools added to the 100,000 which already existed for boys and to double the 44 millions of pupils who now receive instruction in them."

Primary to Anglo-Vernacular

The transition from Primary to Anglo-Vernacular schools, that is, from primary to secondary education is comparable to the transition from a Board school in England to a secondary school under the authority of a Municipality or County Council. But there is a difficulty owing to the different systems prevailing in different Provinces. Nevertheless in all provinces a boy may begin in a vernacular primary school and pass from it to a secondary school. According to the Quinquennial Review "In Bombay all children

Statement of Educational Progress in BIHAR and ORISSA.

	1911-12.	1912-13.	1913-14
Area in square miles	88 1.0		
Population { Male	18 032,708	No change	No change
Female	18 827 328		
TOTAL POPULATION	36 860 036		
<i>Public Institutions for Males</i>			
Number of arts colleges	7	7	"
Number of high schools	93	95	91
Number of primary schools	31 690	22,452	22 509
<i>Male Scholars in Public Institutions</i>			
In arts colleges	1 430	1 22	2,062
In high schools	25 402	23,110	23,712
In primary schools	587 341	592,243	607 962
Percentage of male scholars in public institutions to male population of school going age	24.8	26.0	20.3
<i>Public Institutions for Females</i>			
Number of arts colleges			
Number of high schools	3	3	3
Number of primary schools	1 259	1 498	1 845
<i>Female Scholars in Public Institutions</i>			
In arts colleges			
In high schools	286	227	717
In primary schools	78 076	82,254	91 567
Percentage of female scholars in public institutions to female population of school going age	3.2	3.4	3.7
TOTAL SCHOLARS in public institutions { Male	669 921	704,485	712 503
Female	90 953	95 231	105 479
TOTAL	760 874	799 766	817 982
TOTAL SCHOLARS (both male and female) in all institutions	804,658	847 244	861 535
<i>Expenditure (in thousands of rupees)</i>			
From provincial revenues	19 55	23 11	32 71
From local funds	7 25	8,24	11.29
From municipal funds	52	52	91
Total Expenditure from public funds	27 32	31 87	45 91
From fees	17 85	18 11	20,00
From other sources	11 27	11,90	15 41
GRAND TOTAL OF EXPENDITURE	55,94	61,88	79 92

must begin in the vernacular schools before proceeding to the secondary schools, in other provinces children may do so. (The italics are ours). "The point at which the teaching of English is begun in the secondary schools is usually the highest point in the secondary school to which children from vernacular schools can be drafted, but in the United Provinces and the Punjab there are special arrangements made to facilitate the transition from the vernacular school system to the secondary school system of children who have pursued the vernacular school course to a higher point than this. (p. 97) It may be useful to describe the actual procedure in one Presidency. In Bombay before proceeding to an Anglo-vernacular school a boy must have passed standard IV of a primary school and a girl standard III. The curriculum of the first three standards of an Anglo-vernacular school is very similar to that of the last three standards of a vernacular school (Standards V, VI and VII)—except that in the Anglo-Vernacular school English is added as a subject, though not used in these standards as the medium of instruction.

Rural Schools

In the provinces of Bombay Bengal the Punjab and the Central Provinces a distinction is drawn between rural and urban primary schools. The curriculum differs according to this distinction. In the Central Provinces the distinction was, up to the time of the publication of the last Review one of time mainly to allow the boys to spend half their time in agricultural work. The object of rural schools is not so much to teach agriculture as to train the minds of prospective agriculturists in an elementary way. In 1900 an attempt was made in Bombay to introduce agricultural text-books, the effect of which may only have been to destroy the faith of the boys in their father's primitive methods without having any appreciable influence on the improvement of agricultural practices. About a year ago a meeting of educational inspectors decided against this experiment. The whole question of remodelling the rural school course has been reconsidered, and in Bombay at least that and the ordinary primary course have been brought closer together. A boy who starts in a rural school can now complete the whole primary course in the same time as a boy who starts in an urban school. The idea is that boys educated in rural schools should not be put at a disadvantage. At the same time—and this is important—an attempt has been made to make rural education, how ever elementary form a system of elementary education which should be complete in itself. Hence the differences between rural education and ordinary primary education are unimportant and indefinite, in Bombay at least. The last Government Resolution declares it to be not practicable at present in most parts of India to draw any great distinction between the curricula of rural and of urban primary schools," but in the latter class of schools there is special scope for practical teaching of geography school excursions, etc., and the nature study should vary with the environment and some other form of simple knowledge of the locality might advantageously

be substituted for the study of the village map. As competent teachers become available a greater differentiation in the courses will be possible." Such differentiation has long been found a perplexing problem, and it may be doubted whether with wisdom any but indefinite differences can be introduced.

Professional and Technical Education.

Industrial schools are to be found dotted about India some maintained by Government others by municipalities or local boards and others by private bodies. One of the most important institutions of this type is the Victoria Jubilee Technical Institute in Bombay. There is also the well known Thomason College of Engineering at Bloreke, the College of Science at Poona, and the Sidpur College in Bengal. There are Schools of Art in the larger towns of India where not only architecture and the fine arts are studied but also practical crafts like pottery and iron work. There is also a school of Forestry at Dehra Dun in the north of India. Besides these there are many medical schools and colleges which prepare students for the medical degrees of the various Universities and of which the Grant Medical College in Bombay may be taken as a good example. There are agricultural colleges, the most important of which is the Pusa Agricultural College and Research Institute which trains experts in specialised branches of agricultural science, such as agricultural chemistry, economic botany mycology and entomology. We may also mention the Indian Institute of Science at Bangalore the product of generous donations by the Tata family. Two institutions mark the progress of educational interest in the Bombay Presidency the Government Institute of Science—for whose spacious building (not yet completed) the Government is indebted to the generosity of Sir Cowasji Jehangir Sir Jacob Sassoon and Sir Currimbhoy Phiroze—and the College of Commerce instituted to supply teaching in connection with the establishment of a Faculty of Commerce in the University.

Colleges for Teachers.

There are training colleges for secondary teachers in various parts of India, and what are called in some cases Training Colleges. In other normal schools, for the training of vernacular teachers. As there has been considerable dissatisfaction on account of the defective qualities and pay of teachers in schools, Government are now wakening to the importance of paying more careful attention to these institutions and the last Resolution provides for a better scheme of pay for teachers.

Education of Girls.

Hitherto little attention has been paid to this important branch of education. Even in the latest Resolution nothing is definitely proposed though certain lines are laid down for guidance of enterprise in this direction. However there do exist schools and colleges for girls, while a number of the female sex are educated at institutions common to both sexes. Arts Colleges, Medical Colleges and the like admit both male and female students, and a small percentage of women attend them. In those Presidency Towns, however where there are no colleges

Statement of Educational Progress in the UNITED PROVINCES.

	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles						
Population						
{ Male						
{ Female						
Total Population						
<i>Public Institutions for Males</i>						
Number of arts colleges	24	31	107 104	107 287		
Number of high schools	106	111	24 624 344	24 641 634		
Number of primary schools	9 598	9 280	22 566 048	22 569 277		
<i>Male Scholars in Public Institutions</i>						
In arts colleges	3 319	4 150	4 180	4 602		
In high schools	29 647	32 060	33 192	34 237		
In primary schools	4 0860	436 67	432 497	470 065		
Percentage of male scholars in public institutions to male population of school-going age	14.8	14.0	14.4	15.5		
<i>Public Institutions for Females</i>						
Number of arts colleges	4	4	4	5		
Number of high schools	22	23	20	20		
Number of primary schools	978	936	941	957		
<i>Female Scholars in Public Institutions</i>						
In arts colleges	88	40	51	54		
In high schools	1 827	1 960	1 854	1 804		
In primary schools	39 311	36 017	37 566	41 840		
Percentage of female scholars in public institutions to female population of school-going age	1.3	1.2	1.3	1.4		
TOTAL SCHOLARS in public institutions (Male and Female)	19 311	53 175	64 831	72 194		
TOTAL SCHOLARS in public institutions (Male and Female)	14 719	41 529	42 066	48 394		
TOTAL SCHOLARS in public institutions (Male and Female)	383 713	574 704	573 407	621 566		
TOTAL SCHOLARS in public institutions (Male and Female)	639 418	847 091	846 787	712 040		
<i>Expenditure (in thousands of rupees)</i>						
From provincial revenue	21 76	29 45	31 53	37 50		
From municipal funds	30.2	27 69	24 74	26 54		
From other sources	2 81	8 01	8 17	9 54		
Total Expenditure from public funds	64 82	65 15	64 54	67 58		
From fees	15 03	17 82	18 08	20 50		
From other sources	14 67	35 76	15 56	10 85		
CARD TOTAL OF EXPENDITURE	84 52	95 23	83 39	107 93		

specialty for women, it seems to be generally recognised that there ought to be, particularly when one remembers how important it is to bring the influential class of women and mothers round to some sympathy with modern thought and ideas. It may be presumed that Government will pay very limited attention to this side of education until Indians themselves demand such a move. Most Indians object to intrusions on their family life and take a different attitude to women from that of Western races. Still there are schools for girls and female inspectors employed by Government.

European Schools

There are schools for Europeans and Eurasians in India and they are inspected by Government inspectors specially appointed for the control of European schools and for the allocation of grants to schools under their sphere of influence. The education of the domiciled communities has been found a singularly perplexing problem, and in 1912 a special conference was summoned to consider the matter. The difficulty is that they are a thing apart from the general system of education devoted to Indians proper.

Educational Services.

These are divided into (a) the Indian Educational Service, (b) the Provincial Educational Service, (c) the Subordinate Educational Service.

(a) Indian Educational Service.—The Indian Educational Service is comprised of distinguished graduates of Universities of the United Kingdom, chiefly from Oxford and Cambridge. At the head of the Educational Department in each Presidency is the Director of Public Instruction, who is a member of the Service drawn from one of its branches and ex officio a member of the Legislative Council of his Presidency. Under him are Educational Officers in three branches, (a) Inspectors, (b) Principals and Professors of Colleges, (c) Headmasters of High Schools. Under the present system it is still possible for an English graduate sent out from home to start in one branch of the service and pass from one to another at the will of Government. All, with some few exceptions, start at the pay of Rs. 500 per mensem with an annual increment of Rs. 50 per mensem, and go up to Rs. 1,000 per mensem, the Director of Public Instruction being put on to the salary of Rs. 2,500 per mensem. A small number of personal allowances was arranged in 1896, when the service was re-organised and received its title. There are lower allowances of Rs. 200 to Rs. 250

higher allowances of Rs. 250 to Rs. 500 and an allowance of Rs. 100 after fifteen years of approved service to those who do not get any of the other allowances. Except for the Director of Public Instruction, the limit of the prospect of a member of the Indian Educational Service is Rs. 1,500 a month, the average prospects being considerably less. There is no short service pension Scheme as on foot to improve the prospects of the service. Hitherto this service which is in reality one of the most important in the country has not been rightly estimated though its members are as a rule men of real culture. Hence the great difficulty of recruitment. The number of posts in this service in 1907 throughout India was 167. Additions have been made since then but it is clear that the Service is under-staffed, if one considers the range and importance of its work. Hitherto higher educational work has been little appreciated in India, particularly by Englishmen. Now a-days much is said of its importance but little done for those who carry it out.

At the head of all Educational departments in India at the seat of Government is the Member for Education who sits in the Viceroy's Executive Council.

(b) Provincial Educational Service.—In this service also are found principals and professors of colleges, headmasters and inspectors of schools, and in addition translators to Government and members engaged in other exceptional posts. This service is composed of Indians and recruited in India, the pay scheme being arranged on a much lower scale than that of the Indian Service in accordance with the qualifications and the cheaper rates of living of natives of India. The maximum pay is Rs. 700 the minimum pay Rs. 200. There is a general division between two branches, collegiate and general.

(c) Subordinate Educational Service.—The majority of this service are headmasters (a few) assistant deputy inspectors and all the assistant masters in Government high and middle schools. In Bengal a number of poorly paid teachers have been converted into a lower subordinate service. The pay and prospects of this service are not good and much complaint is made of the inferior nature of the teaching in schools run by its members. In 1907 the figures for this service stood at 6025. The maximum pay of this service is somewhere about Rs. 400. The minimum pay used to be Rs. 30 but is now Rs. 40 per mensem.

STATISTICAL RESULTS.

The statistical table of educational progress in British India published for 1913-14 gives the following results—

The grand total of pupils in all institutions (including private institutions) has risen to 7,818,147. The largest increases occurred in Bengal (28,985), Madras (107,738), the United Provinces (82,174), Bombay (41,332), and Bihar and Orissa (14,201).

The percentage of pupils in public institutions to children of school-going age (reckoned at 14 per cent. of the population) has risen in the case of boys to 29.8, in that of girls to 5.4.

The figures for higher institutions in 1913-14 were as follows—

	Males	Females	Total
In colleges	48,784	470	47,254
In High Schools	496,159	21,312	487,471
In middle schools	542,425	41,218	588,641

The total of those under primary instruction in public and private schools (including primary departments of secondary schools and other schools and private institutions where a vernacular is taught) was 6,438,594.

The number of those under training for the profession of teaching has risen to 17,190.

Statement of Educational Progress in the PUNJAB.

	1906-07	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles						
Population { Male						
Female						
Total Population	87 27		97 213	No change	No change	No change
Public Institutions for males	No change	No change	10 994 007			
Number of arts colleges	10	10	8 082 860	11	9	9
Number of high schools*	94	98		101	103	111
Number of primary schools	3 406	8 246		3 417	3 689	4 158
Male Scholars in Public Institutions						
In arts colleges	1 840	2 093	2 270	2 850	3 770	3 163
In high schools	94 971	40 839	44 833	47 740	45 969	47 940
In primary schools	149 542	157 946	164 061	170 410	197 250	219 786
Percentage of male scholars in public institutions to male population of school-going age	19.8	14.0	15.6	16.9	19.1	19.8
Public Institutions for females						
Number of arts colleges		12	15	16	15	1
Number of high schools		608	699	697	709	708
Number of primary schools						
Female Scholars in Public Institutions						
In arts colleges	914	1 007	1 244	1 603	1 526	1 721
In high schools	32 673	26 300	26 174	29 269	32 118	37 193
In primary schools	1 9	2	2 4	2 7	2 9	3 4
Percentage of female scholars in public institutions to female population of school-going age						
Total Scholars in public institutions { Male	236 503	245 723	257 482	279 493	298 014	326 182
Female	27 283	80 005	72 186	96 073	39 288	45 631
Total	263 784	325 727	329 668	375 566	337 302	371 813
Total Scholars in public institutions { Male	302 576	359 466	349 670	381 113	410 491	439 956
Female						
Total Scholars (both male and female) in all institutions						
Expenditure (in thousands of rupees)						
From provincial revenues	17 60	18 91	18 63	22 70	29 79	33 24
From local funds	1 13	12 90	12 31	12 44	16 17	21 86
From Municipal Funds	3 06	8 48	4 05	3 63	8 96	4 57
Total Expenditure from public funds	21 79	39 29	34 99	38 76	49 92	59 67
From fees	17 04	17 04	17 70	17 70	20 67	23 22
From other sources	10 43	10 04	10 29	18 14	18 61	10 31
GRAND TOTAL OF EXPENDITURE	55 59	66 45	60 57	68 65	84 20	93 25

* Include also vernacular high schools

† Includes an Imperial contribution of Rs. 2,33,742.

The number of pupils in technical schools has increased to 12,751.

The number of schools for Europeans and the assimilated Community now stands at 37,075.

The number of Mahomedan pupils amounts to 1,108,218, of whom 4,956 are in colleges.

Expenditure.

The total expenditure in 1913-14 was Rs. 10,02,23,877 an increase of more than two crores on that of the preceding year. Of the total, roughly 550 lakhs are now met from public funds (against 497 in the preceding year) viz 367 lakhs from provincial, 147 from district and 87 from municipal funds. Of the 452 lakhs from private sources, 100 contributed 185 lakhs.

Among the larger provinces the highest expenditure was in Bengal 220 lakhs.

Principal developments.—In the year 1912-13 the following additional allotments from Imperial funds were announced for education in provinces and politically administered areas—319 lakhs non-recurring from the surplus revenue of that year and 55 lakhs recurring from the revenue of the year 1913-14. The developments of the five preceding years have been described in the quinquennial review. Compared with the figures for 1910-11 the increase during the past two years in pupils of public institutions has amounted to 18.4 per cent. and that in expenditure to 20.5 per cent.

Among special features of the period are the establishment of a Faculty and the scheme for a college of Commerce in the Bombay University. A generous gift of 10 lakhs to the University of Calcutta was made by Dr. Rash Behari Ghose. A committee worked out a scheme for the Dacca University, a project which has subsequently received the general approval of the Secretary of State. The reports on education in the various provinces show that in Madras the rules for grant-in-aid have been made more elastic and the amount given as grant-in-aid has increased by nearly 5 lakhs. In other provinces improvements have been made in secondary education and in the Bombay Presidency the pay of assistant teachers in Government secondary schools has been increased. The pay of primary school teachers has likewise been improved in the Punjab graded scales of salaries from Rs. 12 to Rs. 80 a month are being generally introduced. In Bihar and Orissa the stipends paid to aided school teachers have been regulated. In the Central Provinces a sum has been earmarked for rendering pensionable the pay of all masters drawing Rs. 11 and over. Among developments in Muhammadan education the foundation of an Islamic College at Peshawar has been completed.

A committee considered the foundation of a Technological Institute in Calcutta. Other important committees deliberated during the period on primary education, the education of Muhammadans and other important subjects.

It should be observed that the Statistical tables differ from those given last year in the new arrangement necessitated by the re-arrangement of the provinces of Bengal and Bihar and Orissa.

Recent Developments.

The main developments of the last and of immediately preceding years have been described in the resolution which appeared in the *Gazette of India* published on the 22nd February 1913, which also laid down the policy of the Government of India. The year witnessed the assertion at the Imperial Durbar by command of His Most Gracious Majesty the King Emperor of the predominant claims of educational advancement, the announcement of a recurring Imperial grant of 50 lakhs for the promotion of truly popular education, and the high expression of his hopes and wishes for the expansion and improvement of education delivered by His Majesty the King Emperor in graciously receiving an address presented by the Calcutta University. In addition to the recurring grant of 50 lakhs a recurring grant of 10 lakhs was sanctioned for university and higher education and a non-recurring grant of 65 lakhs was also made. There has been expansion in expenditure accompanied by an increase of those under instruction.

Other features of the year have been the collection of materials for the preparation of extensive schemes for the spread of elementary education, and in certain provinces, for the improvement of secondary education, the growth of new ideas regarding university teaching which has resulted in the proposal for at teaching and residential university at Decca and Benares and the establishment of Professorships, Readerships and Lectureships in Universities like those of Calcutta and Bombay, the generous gift of Sir J. N. Pelt and Dr. Rash Behari Ghose to the University of Calcutta, the creation of a department of industries at Madras as a portion of the scheme of industrial training and development, the sanctioning of an industrial scheme for the Central Provinces, the institution of a College of commerce in Bombay, an inquiry carried out by Colonel Atkinson and Mr. Dawson into the question of bringing technical institutions into closer touch with the employers of labour, the institution of proposals for an Oriental Research Institute, and the conference held in July 1912 on the education of the domestic community.

Statement of Educational Progress in BURMA

	1907-08	1908-09	1909-10	1910-11	1911-12	1912-13
Area in square miles	250,736		246,735	240,939		
Population	11,000,000		11,000,000	11,000,000		
Male	5,500,000		5,500,000	5,500,000		
Female	5,500,000		5,500,000	5,500,000		
Total Population	11,000,000		11,000,000	11,000,000		
Public Institutions for Males						
Number of arts colleges	2	2	2	2	2	2
Number of high schools	11	11	11	11	11	11
Number of primary schools	26	108	480	1,783	4,733	5,046
Male Scholars in Public Institutions						
In arts colleges	148	232	291	336	336	448
In high schools	8,895	9,590	10,368	10,634	10,888	11,244
In primary schools	136,687	191,246	1-1,877	12,555	126,877	143,422
Percentage of male scholars in public institutions to male population of school-going age	4.1	4.1	20.4	20.9	21.8	24.5
Public Institutions for Females						
Number of arts colleges	0	0	11	11	13	14
Number of high schools	616	619	53	52	688	595
Number of primary schools						
Female Scholars in Public Institutions						
In arts colleges	7	13	37	52	8	7
In high schools	1,833	1,604	1,274	2,135	2,440	2,911
In primary schools	3,806	3,779	58,291	3,534	37,470	40,864
Percentage of female scholars in public institutions to female population of school-going age	0.1	0.1	8.1	8.5	9.0	10.9
TOTAL SCHOLARS in public institutions. { Male	142,025	191,862	198,120	194,401	202,108	227,085
Female	0.359	70,106	71,032	73,909	80,825	97,080
Total	382,066	263,968	269,152	270,310	282,933	324,065
TOTAL SCHOLARS (both male and female) in all institutions.	483,211	438,073	479,882	445,255	450,698	504,985
From provincial revenues	17,455	17,089	16,711	18,095	32,311	25,752
From local funds	4,711	3,407	4,068	4,222	4,441	(a) 5,017
From municipal funds	3,855	3,460	3,437	3,668	3,889	(b) 4,477
Total Expenditure from public funds	24,511	24,560	24,217	26,985	40,649	35,860
From fees	10,352	19,777	14,559	15,009	18,553	18,449
From other sources	4,489	4,411	4,833	7,400	6,220	7,200
GRAND TOTAL OF EXPENDITURE	39,311	42,711	43,668	47,377	53,396	61,555

* In 1912 also vocational high schools.

(a) Includes Rs. 72,817 being provincial contribution to District Grant Fund.

(b) Includes Rs. 37,772 being provincial contribution to Municipalities.

Statement of Educational Progress in ASSAM

	1911 12.	1912 13	1913 14.
Area in square miles	61 471	No change	No change
Population } Male	3 638 287		
} Female	3 421,570		
TOTAL POPULATION	7 059 857		
<i>Public Institutions for Males</i>			
Number of arts colleges	2	2	2
Number of high schools	27	27	29
Number of primary schools	3 466	3 584	3 700
<i>Male Scholars in Public Institutions</i>			
In arts colleges	285	360	441
In high schools	8 723	9 985	11 186
In primary schools	12 211	13,236	150 584
Percentage of male scholars in public institutions to male population of school-going age	29.1	30.8	32.8
<i>Public Institutions for Females</i>			
Number of arts colleges			
Number of high schools	1	2	3
Number of primary schools	242	256	300
<i>Female Scholars in Public Institutions</i>			
In arts colleges			1
In high schools	201	363	411
In primary schools	16,336	17 861	20 012
Percentage of female scholars in public institutions to female population of school-going age	3.5	3.7	4.4
TOTAL SCHOLARS in public institutions.	{ Male	159 101	168 364
	{ Female	17 931	19 086
"TOTAL"	177 032	187 450	208,150
TOTAL SCHOLARS (both male and female) in all institutions	182,112	194 288	210,141
<i>Expenditure (in thousands of rupees)</i>			
From provincial revenues	5.87	7.71	10.76
From local funds	5.03	5.82	6.25
From municipal funds	14	16	33
Total Expenditure from public funds	11.04	13.69	17.34
From fees	2.79	3.02	3.50
From other sources	2.26	2.33	2.44
GRAND TOTAL OF EXPENDITURE	16.09	19.04	23.28

Statement of Educational Progress in the NORTH WEST FRONTIER PROVINCE.

	1908-09	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles						
Population						
Male						
Female						
Total Population						
<i>Public Institutions for Males</i>						
Number of art colleges	1	1	13 108	1	1	2
Number of high schools	12	13	1 182 10	12	12	14
Number of primary schools	24	267	1 011 831	284	135	440
<i>Male Scholars in Public Institutions</i>						
In art colleges	2	10	22	28	37	77
In high schools	1 617	4 255	4 486	1 146	1 438	4 007
In primary schools	11 41	12 008	13 034	14 189	16 809	22 327
Percentage of male scholars in public institutions to male population of school-going age	10.1	11.2	11.8	13.1	15.4	18.7
<i>Public Institutions for Females</i>						
Number of art colleges						
Number of high schools	3	2	27	3	20	30
Number of primary schools						
<i>Female Scholars in Public Institutions</i>						
In art colleges						
In high schools	1 201	1 376	1 775	1 025	2 044	2 220
In primary schools	1 1	1 3	1 4	1 5	1 6	1 7
Percentage of female scholars in public institutions to female population of school-going age						
<i>TOTAL SCHOLARS in public institutions</i>						
Male	17 830	19 689	20 119	23 236	27 344	38 124
Female	1 605	1 973	2 090	2 247	2 360	2 610
Total	19 235	21 482	22 012	25 483	29 740	35 743
<i>TOTAL SCHOLARS (both male and female) in all institutions</i>	24 591	29 045	31 891	34 911	38 472	44 445
<i>Expenditure (in thousands of rupees)</i>						
From provincial revenues	80	98	1 36	99	1 366	310
From local funds	84	91	1 4	1 4	1 06	11
From municipal funds	95	93	61	66	1 179	66
Total Expenditure from public funds	238	292	2 98	3 99	850	589
From local	40	46	47	50	66	82
From other sources	61	63	1 5	1 4	47	258
GRAND TOTAL OF EXPENDITURE	319	315	3 88	4 58	962	10 26

† In India Rs. 1 80, 1 90 and 1 04 in thousands respectively from Imperial grants

(n) Including Rs. 2 45 (in thousands) from Imperial grants

* Imperial Revenues.
† Including Rs. 68 215 from Imperial Revenues

Statement of Educational Progress in COORG.

	1906-09	1909-10	1910-11	1911-12	1912-13	1913-14
Area in square miles { Male Population { Female						
TOTAL POPULATION						
Number of arts colleges	1	1	1	1,692	No change	No change
Number of high schools	92	82	81	97,270		
Number of primary schools				77,697		
Male Scholars in Public Institutions				174,976		
In arts colleges						1
In high schools					80	98
In primary schools						
Percentage of male scholars in public institutions to male population of school going age	988	240	928	208	201	228
	8,427	2,698	9,721	3,970	4,523	4,065
	46.7	27.2	27.2	20.7	43.6	46.9
Female Scholars in Public Institutions						
Number of arts colleges						
Number of high schools						
Number of primary schools	5		6			6
Female Scholars in Public Institutions						
In arts colleges						
In high schools						
In primary schools						
Percentage of female scholars in public institutions to female population of school going age	9	1,568	1,721	1,778	1,843	2,184
	14.1	18.6	15.0	16.0	17.4	19.7
	12.0					
TOTAL SCHOLARS in public institutions. { Male Total { Female						
	1,869	4,087	4,600	4,143	4,909	5,390
	1,447	1,644	1,811	1,681	2,083	2,294
	6,918	6,731	6,910	6,203	6,042	7,084
	792	6,335	6,640	1,811	7,641	8,039
TOTAL SCHOLARS (both male and female) in all institutions.						
Expenditure (as thousands of rupees)						
From provincial revenue	26	39	61	69	75	63
From local funds	11	12	13	13	13	17
From completed funds	1	1	1	2	2	2
Total Expenditure from public funds						
From public funds	38	48	74	64	90	73
From other sources	12	12	12	13	14	14
From other sources	8	5	6	6	7	6
GRAND TOTAL OF EXPENDITURE	63	60	92	73	110	91

The Benares Hindu University.

There were originally three distinct movements in favour of founding a Central Hindu University. In the first place in 1903, the Hon. Pandit Madan Mohan Malaviya made proposals which were confirmed and approved by the Sanatan Dharma Mahasabha or Congress of Hindu Religion which met at Allahabad in January 1906. About that time Mrs. Annie Besant also put forward the idea of establishing a University at Benares and applied to the Government for a charter. In the third place a number of Hindu gentlemen under the guidance of the Hon. Maharaja Sir Rameshwar Singh Bahadur Koiri of Darbhanga were considering the possibilities of starting an educational institution at Benares. The leaders of these movements soon recognised that a union of forces was essential, and in April 1911 Mrs. Besant and the Hon. Pandit Madan Mohan Malaviya met at Allahabad to consider possible lines of agreement. This meeting was followed shortly afterwards by another, when it was agreed that the first governing body should consist of representatives of the Hindu community. Mrs. Besant and representative trustees of the Central Hindu College and also that the Theological faculty should be entirely in the hands of Hindus. At the same time Mrs. Besant agreed to withdraw her petition for a charter which was then before the Secretary of State. At subsequent meetings presided over by the Maharaja Bahadur of Darbhanga a draft constitution was arranged and it was decided to wait upon the Hon. Member for Education and lay before him the provisional scheme. In the meantime, deputations for the collection of funds were instituted and these visited the leading centres in India. The result was most satisfactory. Amounts big and small were promised not only from India, but from England, so far as the British Empire and South Africa and besides Hindus of all denominations and stations in life some Mahomedans and a few Europeans, official as well as unofficial, have promised to contribute.

Government Approval.—In October 1911, Sir Harcourt Butler wrote a very sympathetic letter signifying the approval of Government to the scheme and indicating the conditions laid down by the Government of India.

- 1 The Hindus should approach Government in a body like the Mahomedans.
- 2 A strong efficient and financially sound college with an adequate European staff should be the basis of the scheme.
- 3 The University should differ from existing Indian Universities by being a teaching and residential institution and by offering religious instruction.
- 4 The movement should be entirely educational.
- 5 There should be the same measure of Government supervision as in the case of the proposed University at Aligarh.

It was subsequently added that a sum of Rs 50,00,000 must be collected, but the capitalised value of the properties transferred in trust and the perpetual grants made by the Maharajas of Jodhpur, Kashmir and Bikaner may be included.

Objects of the University.—These may be said to be as follows—

- 1 To promote the study of the Hindu Shastras and of Sanskrit literature generally as a means of preserving and popularising the best thoughts and culture of the Hindus and all that was good and great in the ancient civilisation of India.
- 2 To promote learning and research generally in arts and science in all branches.
- 3 To advance and diffuse such scientific, technical and professional knowledge combined with the necessary practical training as is best calculated to promote indigenous industries and develop the material resources of the country.
- 4 To promote the building up of character in youth by making religion and ethics an integral part of education.

Proposed Faculties.—In a letter to Sir Harcourt Butler the Maharaja Bahadur of Darbhanga has given an outline of the proposed faculties which will be those of Oriental studies, Theology, Arts, Science (Pure and Applied) and Law. The main objects of the first named will be to foster the study of Sanskrit and its literature. It is proposed to place in charge of the work a European Sanskrit scholar who will be assisted by Indian professors and pupils of the old class. The faculties of Arts and Science will work for the present on the lines laid down by the existing universities. The study of some special branch of technical education will be best inaugurated under the heading Applied Science which will be expanded into a Faculty of Technology in due course. The Faculty of Law will specialise in the Hindu Law and its study from original sources. It is hoped also that in course of time there will be Faculties or Colleges of Agriculture, Commerce, Medicine, Surgery and other branches of knowledge such as Music and the Fine Arts.

Proposed constitution.—In July 1914 Sir Harcourt Butler addressed a letter to the Maharaja of Darbhanga, in which he stated that the Government of India and the Secretary of State had come to the conclusion that the best form of constitution would be to constitute the Lieutenant-Governor of the United Provinces ex officio Chancellor of the University with certain opportunities for giving advice and certain powers of intervention and control. "The Hindu University," he wrote, "though not empowered to affiliate colleges from outside will be Imperial in the sense that subject to regulations, it will admit students from all parts of India on the other hand it will be localised in or by Benares. There will be obvious advantages in having as Chancellor of the University the Lieutenant-Governor of the province who is also Chancellor of the Allahabad University and who will be able to help to coordinate the work between the two, to secure them corresponding advantages and to foster a spirit of healthy co-operation. Moreover such a constitution is in accord with the general policy of decentralisation which is now pursued by the Government of India."

The powers which, in the opinion of Government, it is necessary to reserve to the Chancellor were enumerated. Some of these had been suggested by the University Committee, others were emergency powers which might never be exercised. The principle underlying them all is that, in the interest of the rising generation and the parents, the Government must be in co-operation with University and in a position to help it effectively and secure sound finance. The interest of the Government and the students and their parents in this matter are necessarily identical.

In concluding the letter referred to above Sir Harcourt Butler said — In order to meet the sentiment of the subscribers it has been conceded that the University shall be called the Benares Hindu University. It will have no religious test and will be open to students of all denominations as well as Hindus. Hindu theological teaching and observances will not be compulsory for any but Hindus. It will also be a teaching and residential university. The terms mentioned above represent the conditions the acceptance of which is a necessary precedent to the elaboration of any detailed scheme.

The Bill Passed.

On the basis of these principles further discussion took place between the Education Member of the Government of India and the promoters of the University and by degrees complete agreement was reached. A Bill embodying this agreement was introduced into the Imperial Legislative Council in 1915 and passed at the closing session of the Council. For a summary of this debate the reader is referred to the section which records the work of The Imperial Legislative Council (q.v.). The cardinal features of the Act are as follows —

It establishes and incorporates a teaching and residential Hindu University at Benares. First of all, it creates a corporation sole of the University. The portals of the University are open to persons of all classes, castes and creeds but provision shall be made for religious instruction and examination in Hindu religion only. This instruction is compulsory in the case of Hindus. Special arrangements are to be made for the religious instruction

of Jain or Sikh students. The Governor-General of India for the time being shall be the Lord Rector, the Lieutenant-Governor for the time being of the United Provinces of Agra and Oudh shall be the Visitor who has the power to inspect the University and its colleges and to annul the proceedings of the University if they are found to be not in conformity with this Act. Statutes and Regulations. The authorities and Officers of the University are named to be (1) The Chancellor (2) The Pro-Chancellor (3) The Vice-Chancellor (4) The Pro-Vice-Chancellor (5) The Court, (6) The Council (7) The Senate (8) The Syndicate (9) The Faculties and their Deans (10) The Registrar and (11) The Treasurer. In administrative affairs of the University the Court is the supreme governing body and has the power to review the acts of the Senate. The executive body of the Court is called the Council. The Senate is the academic body of which the executive body is called the Syndicate. To meet the recurring charges a permanent endowment of fifty lacs of rupees is to be made and invested in authorised securities. The degrees, diplomas, certificates and other academic distinctions granted by the University are to have the same recognition at the hands of Government as those granted by the existing Indian Universities. The formation and scope of Statutes and Regulations of the University are provided with minute detail. The Governor-General in Council has extensive power to act in cases of emergency viz. the removal of any member of the teaching staff, the appointment of a certain examiner and the raising of the scale of remuneration of the staff. The University grows out of the present Hindu University Society which is now dissolved and all its property, rights, powers and privileges are to vest in the Benares Hindu University.

It will be seen from the above that the Act stipulates that the University shall commence with an endowment of fifty lakhs of rupees. Sums aggregating approximately Rs. 82 lakhs have been promised, and Rs. 50 lakhs paid. The Government of India have undertaken to make an annual contribution of a lakh of rupees. It is expected that the foundation stone of the new University buildings will be laid by the Viceroy in February 1916.

The Mahomedan University.

The movement in favour of transforming the Mahomedan Anglo-Oriental College at Aligarh into a teaching and residential University was started as early as the end of last century. It was hoped that the foundation of such an institution would awaken among Mahomedans the memory of their old seats of learning and prove an incentive to them in the future to regain the intellectual eminence from which they seem to have fallen of late years. Some time ago it was observed in a government report that the backwardness in education on the part of Mahomedans was due partly to poverty, partly to indifference and partly to their educational wants not being the same as those of the remainder of the population amongst whom they live. In this year's report, however, it is stated that a remarkable awakening on the part of Mahomedans in this direction has been witnessed during the last decade when the total number of pupils under instruction in all classes of institutions rose by nearly 60 per cent. On the other hand in the matter of higher education their numbers remain well below that proportion notwithstanding the large relative increase. It was the aim of Sir Syed Ahmed Khan, K.C.S.I., years ago to place the benefits of a liberal education within the reach of the Mahomedan community and in 1875 a school was opened which three years later was converted into the Aligarh College. Under the inspiring influence of Mr Beck and of Mr (now Sir) Theodore Morrison great strides have been made. The college is now affiliated to the Allahabad University for the First Arts and B.A. for the B.Sc. in mathematics, chemistry and physics, for the M.Sc. in mathematics and chemistry and D.Sc. in mathematics and for the M.A. in English, Arabic, Persian, Sanskrit, History, Philosophy, Political Economy and Mathematics. The students of the college are also instructed in the theology and faith of Islam.

State of the Project.—His Highness the Aga Khan, the foremost Indian Mahomedan, had for some time been waiting until the time was ripe to make an appeal for funds for the University which he had constantly held before his co-religionists as the educational goal to which they should strive. He conceived that the moment had arrived in 1911 when His Majesty the King Emperor visited India to announce in person his coronation to his Indian people. As the result of a spirited appeal followed by a very active personal

canvass His Highness was able to secure promises aggregating some thirty lakhs of rupees. A draft constitution was drawn up and a consultative committee was formed. But the draft constitution was not approved by the Secretary of State and on the question of the right of affiliating in particular there was a sharp difference of opinion. Government laid down, as in the case of the proposed Hindu University that the new university should not have the power of affiliating Moslem institutions in other parts of India. Thereafter the project lapsed. In 1915 when the Hindu University movement crystallised in the Hindu University Act further steps were taken to come to an agreement with the Government of India. The Government however laid down at once that the principles governing the constitution of the Hindu University would be applied to all other institutions of a like character and that they were not prepared to consider any proposals or to receive any deputation, which did not accept this governing rule. On October 16th 1915 a meeting of the Moslem University Association was held at Aligarh under the presidency of the Raja of Mahmudabad when it was proposed that the meeting recommend to the Moslem University Foundation Committee the acceptance of the Moslem University on the lines of the Hindu University. The resolution was declared to have been carried but this was subsequently disputed and an official report of the proceedings was issued. It is evident that whatever transpired at the Aligarh meeting a large number of Indian Moslems are not prepared to accept a constitution for their University similar to that of the Hindu University and that there is no prospect of agreement. Nor is there the slightest prospect of the Government of India agreeing to any markedly different constitution. The prospects of the University maintaining are therefore exceedingly remote. It is a curious question that the Hindu University which was a poor second in the field should have received its Act and be proceeding with the necessary buildings whilst the Moslem University started long before should be indefinitely held up. It has been proposed that the interest on the funds subscribed should be devoted to other educational objects such as scholarships, but this is opposed by some of the subscribers who maintain that they subscribed to a University and if the funds are not to be devoted to this purpose they should be returned to the donors.

Local Self-Government.

Throughout the greater part of India, the village constitutes the primary territorial unit of Government organisation and from the villages are built up the larger administrative entities—tahsils, sub-divisions and districts.

The typical Indian village has its central residential site with an open space for a pond and a cattle stand. Stretching around this nucleus lie the village lands, consisting of a cultivated area and (very often) grounds for grazing and wood-cutting. The inhabitants of such a village pass their life in the midst of these simple surroundings, welded together in a little community with its own organisation and government which differ in character in the various types of villages, its body of detailed customary rules and its little staff of functionaries, artisans and traders. It should be noted however that in certain portions of India, e.g. in the greater part of Assam, in Eastern Bengal, and on the west coast of the Madras Presidency, the village as here described does not exist, the people living in small collections of houses or in separate hamlets.—(*Gazetteer of India*.)

The villages above described fall under two main classes, viz.—

Types of Villages—(1) The *severalty* or *raiyatwari* village, which is the prevalent form outside Northern India. Here the revenue is assessed on individual cultivators. There is no joint responsibility among the villagers, though some of the non cultivated lands may be set apart for a common purpose such as grazing and waste land may be brought under the plough only with the permission of the Revenue authorities and on payment of assessment. The village government vests in a hereditary headman, known by an old vernacular name, such as *patel* or *raich*, who is responsible for law and order and for the collection of the Government revenue. He represents the primitive headship of the tribe or clan by which the village was originally settled.

(2) The joint or landlord village, the type prevalent in the United Provinces, the Punjab and the Frontier Province. Here the revenue was formerly assessed on the village as a whole, its incidence being distributed by the body of superior proprietors, and a certain amount of collective responsibility still, as a rule, remains. The village site is owned by the proprietary body who allow residences to the tenantry artisans, traders and others. The waste land is allotted to the village and if wanted for cultivation is partitioned among the shareholders. The village government was originally by the *panchayat* or group of heads of superior families. In later times one or more headmen have been added to the organisation to represent the village in its dealings with the local authorities but the artificial character of this appointment, as compared with that which obtains in a *raiyatwari* village, is evidenced by the title of its holder which is generally *Amardar* a veraciously derivative from the English word number. It is this type of village to which the well known description in Sir H. Maine's *Village Communities* is alone applicable, and here the co-proprietors are in general a local oligarchy with the bulk of the village population as tenants or labourers under them.

Village Autonomy—The Indian villages formerly possessed a large degree of local autonomy since the native dynasties and their local representatives did not as a rule, concern themselves with the individual cultivators but regarded the village as a whole, or some large landholder as responsible for the payment of the Government revenues, and the maintenance of local order. This autonomy has now disappeared owing to the establishment of local, civil and criminal courts, the present revenue and police organisation, the increase of communications, the growth of individualism, and the operation of the individual *ryotwari* system, which is extending even in the north of India. Nevertheless the village remains the first unit of administration, the principal village functionaries—the headman, the accountant, and the village watchman—are largely utilised and paid by Government—and there is still a certain amount of common village feeling and interests.

Panchayats—For some years there was an active propaganda in favour of reviving the village council—tribunal, or *Panchayat* and the Decentralisation Commission of 1908 made the following special recommendations:

While therefore we desire the development of a *panchayat* system, and consider that the objections urged thereto are far from insurmountable, we recognise that such a system can only be gradually and tentatively applied, and that it is impossible to suggest any uniform and definite method of procedure. We think that a commencement should be made by giving certain limited powers to *Panchayats* in those villages in which circumstances are most favourable by reason of homogeneity, natural intelligence and freedom from internal feuds. These powers might be increased gradually as results warrant, and with success here it will become easier to apply the system in other villages. Such a policy which must be the work of many years will require great care and discretion, much patience and judicious discrimination between the circumstances of different villages, and there is a considerable consensus of opinion that this new departure should be made under the special guidance of sympathetic officers.

This is, however still mainly a question of future possibilities and for present purposes it is unnecessary to refer at greater length to the subject of village self-government. An Act was passed in 1912 to provide for the establishment of *panchayats* in the Punjab, but it was contemplated that the areas for which these bodies would be established would be larger than villages, and their functions are limited to the disposal of petty civil suits. In the Punjab it may be mentioned, village self-government survives to a considerable extent, on a basis of custom, and the desirability of bringing it under statutory regulation has been questioned.

Municipalities—The Presidency towns had some form of municipal administration, first under Royal Charters and later under statute, from comparatively early times, but outside of them there was practically no attempt at municipal legislation before 1842. An Act passed in that year for Bengal which was practically inoperative, was followed in 1850 by an Act applying to the whole of India. Under

this Act and subsequent Provincial Acts a large number of municipalities were formed in all provinces. The Acts provided for the appointment of commissioners to manage municipal affairs, and authorised the levy of various taxes, but in most Provinces the commissioners were all nominated, and from the point of view of self-government these Acts did not proceed far. It was not until after 1870 that much progress was made. Lord Mayo's Government in their Resolution of that year introducing the system of provincial finance, returned to the necessity of taking further steps to bring local interest and supervision to bear on the management of funds devoted to education, sanitation, medical charity, and local public works. New Municipal Acts were passed for the various Provinces between 1871 and 1874 which, among other things, extended the elective principle but only in the Central Provinces was regular representation generally and successfully introduced. In 1881 Lord Ripon's Government issued orders which had the effect of greatly extending the principle of local self-government. Acts were passed in 1883-4 that greatly altered the constitution, powers, and functions of municipal bodies, a wide extension being given to the elective system, while independence and responsibility were conferred on the committees of many towns by permitting them to elect a private citizen as chairman. Arrangements were made also to increase municipal resources and financial responsibility some items of provincial revenue suited to and capable of development under local management being transferred, with a proportionate amount of provincial expenditure, for local objects. The general principle thus laid down have continued to govern the administration of municipalities down to the present day. In several Provinces there are besides municipalities "notified areas," i.e., small towns which are not fit for full municipal institutions, but to which parts of the Municipal Acts are applied, their affairs being administered by nominated committees. These are to be regarded as embryo municipalities.

Local Boards.—The establishment of boards for dealing with local affairs in rural areas is a relatively recent development. No such boards existed in 1858, though some small voluntary funds for local improvements had been raised in Madras and Bombay while in Bengal and the United Provinces consultative committees assisted the district officers in the management of funds devoted to local schools, roads and dispensaries. The system of raising cesses on land for purposes of this description was introduced by legislation in Madras and Bombay between 1866 and 1869. In the case of Bombay nominated committees were to administer the proceeds of the cess. The year 1871 saw a wide development of legislation for local administrative purposes, partly due to growing needs and partly the result of the financial decentralisation scheme of Lord Mayo's Government, various Acts being passed in different Provinces providing for the levy of rates and the constitution of local bodies in some cases with an elected element, to administer the funds. The whole system was reorganised in accordance with the policy of Lord Ripon's Government. Under the Orders of 1881 the existing local committees were to be replaced by a system of boards

extending all over the country. The lowest administrative unit was to be small enough to secure local knowledge and interest on the part of each member of the board, and the various minor boards of the district were to be under the control of a general district board, and to send delegates to a district council for the settlement of measures common to all. The non-official element was to preponderate, and the elective principle was to be recognised, as in the case of municipalities, while the resources and financial responsibilities of the boards were to be increased by transferring items of provincial revenue and expenditure. It was, however, recognised that conditions were not sufficiently advanced or uniform to permit of one general system being imposed in all provinces, and a large discretion was left to Local Governments. The systems introduced in different parts of India by the Acts of 1883-4 (most of which are still in force) consequently varied greatly.

Mofassil Municipalities.—The total number of municipalities has altered little for many years past. New municipalities have been formed from time to time, but there have also been removals from the list. There was indeed a rather marked decrease according to the last decennial review (1902-12) and the number in 1911-12 was actually less than it was thirty years earlier. This result was brought about by the reduction to "notified areas" of a considerable number of the smaller municipalities in the Punjab and United Provinces. The figures showing the constitution of the municipalities call for little comment. Taking them as a whole the proportion of elected members was in 1911-12 rather more than a half, whereas in 1891-02 it was slightly less. The proportions of non-officials and Indians, already high in 1901, also increased during the decade. Elected members are in the majority in the cities of Bombay, Madras and Rangoon and in Bengal (excluding Calcutta). Bihar and Orissa, the United Provinces, and the Central Provinces in the North West Frontier Province and Baluchistan, on the other hand, there are no elected members, and in Burma they form a small minority. Non-officials outnumber officials everywhere and Indians outnumber Europeans to an even greater degree, except in Rangoon. Taking the municipalities individually some of the commissioners are elected in the great majority of cases. Representation in the larger municipalities is in general by wards or classes of the community or both. Voters must be residents not below a specified age, and property or status qualifications are generally laid down. The Chairman or President of the Municipal Corporation is some times nominated under the orders of the Local Government, but more often chosen by the commissioners from among themselves. The only provinces in which there has been in the past a large proportion of elected non-official chairmen are Madras, the Central Provinces, and the two Bengals, but Bombay has now to be added to the list, in view of the changes made in that province in the closing years of the decade. Various provisions exist as to the exercise of control by Government, particularly as regards finance and appointments. No loans can be raised without Government sanction, and generally speaking municipal budgets, and alterations in taxation require the sanction of the Local

Government or of a Commissioner. Proposals for giving municipal committees a larger degree of independence were put forward by the Decentralisation Commission, and some action on these lines has been taken. Government may provide for the performance of any duty which the commissioners neglect, and may suspend them in case of incompetence, default, or abuse of powers.

Municipal Revenues.—In the provinces in which octroi is levied generally it is the most important source of income. The octroi duties have admitted disadvantages but they are familiar through long usage to the inhabitants of the North and West of India. The possibility of abolishing them was under consideration during the last decade and it was decided in the United Provinces to take this step in many municipalities but the alternative of direct taxation is not a popular one. Precautions are taken to limit the tax to articles actually consumed in a town, and to prevent it from becoming a transit duty. The list of dutiable articles contains in each case only staple articles of local consumption and goods in transit are allowed to pass in bond or receive a refund of the duties on leaving the town. Articles of food are the most important class of goods subject to octroi taxation.

Incidence of Taxation.—A tax on houses and lands is levied to some extent in all provinces and is the main source of municipal revenue where there is no octroi. Taxes on professions and trades and on animals and vehicles are generally levied as also is a water rate in the large towns that have been

furnished with water works. Tolls on roads and ferries and lighting and conservancy rates contribute to the receipts in most provinces. The average incidence of municipal taxation per head of municipal population in 1911-12, for British India, as a whole, was Rs. 2.85. Leaving out of account the Presidency towns, where the figures are higher, the provincial averages ranged from Rs. 5.08 in the North West Frontier Province and Rs. 2.58 in the Punjab to Rs. 1.55 in Madras and Rs. 1.02 in Coorg. Other sources of revenue are municipal lands and buildings, conservancy receipts (other than the rates), educational and medical fees, receipts from markets and slaughterhouses (a very important item in Burma) and interest on investments.

Municipal Functions.—Municipal functions are classified under the heads of public safety, health, convenience and instruction. Within these heads the duties are many and varied. Expenditure apart from that on general administration and collection which amounts to something less than 10 per cent of the total, is similarly classified. The principal normal functions of municipalities now are the construction upkeep and lighting of streets and roads and the provision and maintenance of public and municipal buildings, the preservation of the public health principally with reference to the provision of medical relief, vaccination, sanitation, drainage and water-supply and measures against epidemics and education particularly primary education. Money is raised by loan for water supply and drainage schemes, the cost of which is too large to be defrayed from ordinary revenues.

THE PRESIDENCY TOWNS

The corporations of the Presidency towns occupy a special position and are constituted under special Acts.

Calcutta.—The municipal administration of Calcutta is regulated by the Calcutta Municipal Act of 1869 which replaced an Act of 1858 the working of which had not been altogether satisfactory. The Corporation, as remodelled by the Act of 1869 consists of a Chairman appointed by the local Government and fifty commissioners, half of whom are elected at triennial ward elections while the remainder are appointed four each by the Bengal Chamber of Commerce and the Calcutta Trades Association, two by the Port Commissioners, and fifteen by the local Government. The Act also constitutes a smaller body the General Committee consisting of the Chairman with twelve of the commissioners, four elected by the ward commissioners, four elected by the other commissioners and four appointed by the local Government. There are various special committees and sub-committees.

The entire executive power is vested in the Chairman, to be exercised subject to the approval or sanction of the Corporation or General Committee, whenever this is expressly directed in the Act. To the Corporation are reserved the right of fixing the rates of taxation and such general functions as can be efficiently performed by a large body, while the General Committee stands between the deliberative and executive

authorities, and deals with those matters that are ill adapted for discussion by the whole Corporation but too important to be left to the disposal of the Chairman alone. Power is reserved to the local Government to require the municipal authorities to take action in certain circumstances and their sanction is required to large projects.

Bombay.—The municipal corporation of Bombay which formed the model for the new Calcutta constitution dates in its main features from 1872 and continues to be regulated by the Act of 1888 as amended. Some important changes were made by the City of Bombay Police Charges Act of 1907 which relieved the corporation of the police charges of the city and made over to them in exchange further responsibility for primary education, medical relief and vaccination.

The Corporation consists of 72 councillors, of whom 36 are elected by wards, 16 by the Justices of the peace, 2 by the Fellows of the University and 2 by the Bombay Chamber of Commerce, the remaining 16 being appointed by Government. The general municipal government is vested in the Corporation, while the ordinary business is transacted by a Standing Committee of 12 councillors, 8 appointed by the Corporation and 4 by Government. The president of the corporation is elected by the councillors but is not, like the chairman of the Calcutta Corporation, an executive officer. The

chief executive authority is vested in a separate officer appointed by Government, usually from the ranks of the Indian Civil Service, styled the Municipal Commissioner, who can, however be removed by a vote of 45 councillors.

Madras.—A new Municipal Act for the City of Madras was passed in 1904. By this Act the number of the municipal commissioners, to whom as a body the name Corporation was now applied, was increased from 2, to 86 besides the President and provision was made for the appointment of three commissioners each by the Madras Chamber of Commerce and the Madras Trades Association, and of two by such other associations, corporate bodies, or classes of persons, as the Local Government might direct, while the number to be elected as divisional councillors was fixed at 20. Under the Act previously in force the total number of elected commissioners was not more than 24. The

remaining commissioners were appointed, as they are under the new Act, by the Local Government, who also appoint the President. The Act of 1904 also introduced various other changes in the law which need not be specially noticed. It was modelled to a large extent on the Calcutta Act of 1899. Executive authority is vested in the President who is removable under the existing law by a vote of 24 commissioners. A Standing Committee, consisting of the president and eight other commissioners, is mainly concerned with financial and building question. The President, like the chief executive officers in Calcutta, and Bombay is usually a member of the Indian Civil Service. The number of persons enrolled as voters in 1911-12 was 9,824 rather more than 6 per cent of the total adult male population. The control of the Local Government over the municipality has hitherto been more stringent than in the other Presidency towns.

DISTRICT AND LOCAL BOARDS

The duties and functions assigned to the municipalities in urban areas are in rural areas entrusted to District and Local Boards. The systems of rural local government in the various provinces differ widely. The Madras organisation, which provides for three grades of local boards, most nearly resembles the pattern set in the original orders. Throughout the greater part of that province important villages and groups of villages are organised as Unions each controlled by a **Samastha**. These bodies receive the proceeds of a light tax on houses and spend them mainly on sanitation. Next come the **Taluk Boards** which form the agency for local works in the administrative sections into which the districts are divided. Finally, there is the District Board with general control over the local administration of the district. In Bombay there are only two classes of boards, for districts and **Talukas** respectively. In Bengal, the Punjab and the North West Frontier Province the law requires a District Board to be established in each district, but leaves the establishment of subordinate local boards to the discretion of the Local Government. The Bengal Act authorises the establishment of village Unions also but this provision has not been very largely used. The United Provinces Act formerly in force directed the establishment of district and sub-district boards but the latter were abolished, as mentioned below in 1906. The system in the Central Provinces bears some resemblance to that which prevails in Madras the villages being aggregated into **divisions** and the circles into **groups**, each of which has a Local Board, while for each district there is a District Council having authority over the Local Boards. In Assam district boards have not been introduced, and independent boards are established in each sub-division. Neither district nor sub-district boards exist in Burma, or in Baluchistan. District boards were started in Lower Burma in accordance with Lord Ripon's Local Self-Government Resolution of 1882, but the members took no active interest in them, and they died out after a few years. The district funds are now administered by the Deputy Commissioners of districts.

Elective Principle.—The degree to which the elective principle has been introduced varies greatly in different parts of India. But there is a considerable proportion of elected members everywhere, except in the North West Frontier Province, where the system of election was abolished in 1903. On the whole, however the principle of representation is much less developed in rural than in municipal areas. In Madras the elective system, previously applied to the district boards only, was extended to the Taluk Boards in 1909. In the United Provinces and the Central Provinces there is a substantial majority of elected members.

Chairmen.—The various Acts usually leave it to the Local Government to decide whether the Chairman of the district board shall be elected or nominated. In most provinces the Collector has, as a general rule been appointed, though in the Central Provinces the president is elected and is usually a non-official. In the United Provinces election subject to the veto of the Local Government was prescribed by the Act of 1906 but in practice the Collector is chosen. As regards the subordinate boards, the law and practice vary. Generally speaking, the sub-district boards are on the footing of subordinate committees or agencies of the district boards, with very limited powers and resources but in Madras they exercise independent authority subject to the general control of the district boards, in regard to the less important roads, primary education, medical work, and sanitation.

Provision is made, on much the same lines as in the case of municipalities, for the exercise of control in certain directions by Government or its officers.

Sub-District Boards.—The Decentralisation Commission having in view the admitted failure of sub-district boards as a whole under existing arrangements, except in Madras and Assam put forward proposals for making them the principal agencies of rural board administration by giving them independent resources, separate spheres of duty, and large responsibilities. Proposals for giving the district boards a larger measure of independence were also put forward.

Revenue and Expenditure.—The sources of income open to rural boards are much narrower and less elastic than those of the municipalities. The greater part of their revenue is derived from a cess which they are empowered to levy on the land, and which usually does not exceed one anna in the rupee on the annual rent value (or, in ryotwari provinces, the Government assessment). The cess is ordinarily collected by Government agency along with the land revenue and varies in amount with the latter. Since 1906 the income derived from the land cess has been supplemented by a special Government contribution calculated at the rate of 2½ per cent of that income. Sub-

stantial amounts, apart from this special contribution are granted to the district boards by the Local Governments for various purposes. Apart from receipts in connection with their educational and medical institutions, and markets, the only other important sources of independent revenue are pounds and ferries, and in Madras, road tolls. Except in Madras, the sub-district boards have generally no independent sources of income and merely receive such moneys as the District Boards may allot to them. In Madras the Taluk Boards receive half the land cess levied in their areas, as well as certain miscellaneous revenues.

District and Local Boards.—The following table shows the general constitution of the boards in each province the figures in italics relating to local boards, the others to district boards. The figures are for 1913-14 save where otherwise stated.

Province	Number of Boards	Total Number of Members	By Appointment			By Employment		By Race	
			For office	Nominated	Elected	Official	Non Official	Euro-peans	Indians
Madras	20 10 10	772 1,748	124 28	294 38	354 364	298 351	476 1,041	133 74	639 1,655
Bombay	11	3,600	612	1,900	1,044	20	2,905	204	3,486
Assam	10	518	76	58	184	79	329	140	178
*Bengal	25 2	509 508	142 66	168 415	209 385	163 93	366 769	91 38	418 818
Bihar and Orissa	18 11	380 493	114 61	130 334	147 102	127 75	265 415	134 78	256 420
United Provinces	14	807	3	270	824	260	647	97	800
Punjab	4 10	1,124 888	426 14	481 78	381 190	270 14	854 888	81 8	1,044 180
N.W. Frontier Province	3 19	219	61	166		1	168	26	194
Central Provinces and Berar	10	1,488	21	600	1,328	220	1,621	22	1,820

* Figures for 1911-12

POLICY OF GOVERNMENT DEFINED

The Government of India issued on April 28th 1914, a long resolution dealing with the growth and future of local self government in India. From what has gone before it will have been seen that the Decentralisation Commission made many and detailed recommendations on this question and the intention of the resolution was to summarise policy on these points as well as to complete the chain of pronouncements of policy which commenced with the education resolution and was followed by the sanitary resolution. Owing however to the wide diversity of conditions in India and the extent to which local self government must be a provincial question it was not apparently possible to lay down broad and simple lines especially as in the main the development of local self government is a question of the provision of funds and no one has suggested whence they shall come except in the way of dues from the Imperial Exchequer which is already overburdened. The Resolution was

therefore received with mixed feelings. Those who expected a declaration of a bold forward policy were disappointed, whilst those who realised the difficulties inherent in the working of the principle until some means of providing the necessary funds are devised realised that it went as far as possible in existing conditions.

The resolution commenced with the expression of opinion that the results on the whole have justified the policy out of which local self government arose. The degree of success varies from provinces to provinces and from one part of a province to another but there is definite and satisfactory evidence that of a growth of a feeling of good citizenship particularly in the large towns. On all sides there are signs of vitality and growth. Of the obstacles in the way of realising the ideals of the past the resolution placed in the forefront the smallness and ineffectuality of the local revenues, then the indifference still prevailing in many places towards all forms of public life,

On a review, the Government of India decided to accept the view of the local government or administration as to the degree of progress possible at the present time. Local Governments and Administrations the resolution added, were prepared to advance in the direction of the main recommendations of the Decentralisation Commission.

Turning to details the resolution showed that of the 695 **Chairmen of Municipalities** 222 consisted of elected non-officials 248 of elected officials 51 of nominated non-officials 174 of nominated officials. The election of non-official chairmen has long been urged by Indian politicians, and their views have been so far accepted that the majority of Local Governments are in favour of substituting, so far as possible, non-official for official chairmen. With regard to the larger municipalities the Bombay system is now very much in favour. This consists in the main of a constitution under which an elected chairman is the mouth piece of the corporation whilst the head of the executive is an official nominated by Government but under the control of the Corporation. Whilst not passing this system on all Local Governments, the resolution pointed out that it had the advantage of securing a continuous and strong executive administration by a paid staff whilst maintaining the corporate control and activity of the municipal board. As to the **financial resources** of the municipalities, it was shown that the aggregate income of the 701 municipalities in existence at the close of 1912-13 (excluding the Presidency towns and Rangoon) amounted to £2,282,845 or Rs 4,82,42,676 apart from extraordinary receipts or an average of £4,683 or Rs 70,245 a year. This shows a very rapid expansion. Contributions from Government have materially assisted this expansion. Since 1911 the Government of India have made grants amounting to £3,079,468 (Rs 4,31,47,000), of which £268,300 (Rs 55,23,000) are recurring, for urban sanitation. Municipalities have also received their share—the exact figure is not easily ascertainable—of the large educational grants made by the Government of India since 1911 amounting to about £3,987,800 (Rs 5,98,17,000), of which £285,668 (Rs 1,24,00,000) are recurring. Municipal boards have been relieved of all charges for the **maintenance of police** within municipal limits. In almost every province the recommendation that municipalities should be relieved from financial responsibility for famine relief and should receive assistance from Government in the case of severe epidemics has been already given effect to or the principle has been accepted. The Government of India have also accepted a further recommendation namely that **sanitation** may legitimately be given by Government to poorer municipalities which, without it would be unable to carry on the normal standard of administration required from them.

On the very important subject of financial control, which is sometimes described as minute the Government of India suggested that the municipalities should have a freer hand with regard to their budgets, the only check being the maintenance of a prescribed minimum

balance. They held this out as the policy which should steadily be kept in view.

The Decentralisation Commission recommended that **sub-district boards** should be universally established and that they should be the principal agencies of rural administration. The Government of India left this question to the discretion of the Local Governments. The Local Governments favoured a policy where district and sub-district boards should contain a large preponderance of elected members. They took the view in which the Government of India concurred, that an official should remain chairman of every district and sub-district board. The total number of district and sub-district boards in 1913 was 199 and 538 respectively with an aggregate income of £3,787,219 (Rs 5,68,08,392). In the same year they received specially large grants from the sums allotted by the Imperial Government for education and sanitation. The resolution analysed at some length the proposal that district boards should be empowered to levy a railway or tramway cess in order to expedite the improvement of communications. The Government of India have empowered district boards to levy a special extra land cess of three pias in the rupee on the annual rent value of land for the construction of light railways or tramways conditional on the proposal obtaining the assent of three-fourths of the members of the board. The Government of India also decided that the board could issue debentures secured on the railway property when its accumulated funds were insufficient to bear the cost of construction. They also recommended that the present restrictions on the financial powers of the boards should be gradually relaxed in the direction of securing full discretion subject to the maintenance of the prescribed working balance.

Turning to the organisation of the **villages** the resolution expressed the views of the Government of India towards the establishment of panchayats in the following passage—where any practicable scheme can be worked out in co-operation with the people concerned, full experiment should be made on lines approved by the local government or administration concerned. With this general recommendation they left the matter to the local authorities. With regard to the **Presidency corporations**, the Decentralisation Commission recommended that the Bombay system of an unofficial chairman and an official head of the executive should be generally followed. Bengal and Madras agreed generally with the proposal but Rangoon regarded it as unsuitable to the conditions there obtaining. The Government of India declined to endorse the suggestion that a **Local Government Board** should be formed in each Province for the control of the local bodies. In conclusion the resolution summarised the policy of the Government of India towards the development of local self-government as one of prudent boldness calculating risks but not afraid to take them in the cause of progress.

Since this resolution was issued the Bombay Government has appointed a strong mixed committee to consider the whole question of local self-government in the rural areas whose report is awaited with great interest.

Local Government Statistics.

Municipalities—With this general introduction we can now turn to the statistical results of the working of Local Self Government. The following table gives information as to the constitution of municipal committees, taxation &c., in the chief provinces in 1912-13 (or 1912-13 where no later figures are available).

	Population within Municipal Limits	Number of Municipal Parties	Total Number of Members	By Qualification			By Employment		By Race		Incidence of Municipal Taxation per Head.
				Ex Officio	Nominal	Elected	Officials	Non Officials	Puro peasants	Indians	
Presidency Towns											
Calcutta	890,067	1	60	—	25	25	4	40	16	84	12 0
Bombay	979,445	1	—	—	16	66	7	65	18	54	15 6
Madras	518,680	1	36	1	16	20	5	81	12	24	4 7
Bangalore	284,638	1	25	1	5	19	3	23	13	12	14 0
District Municipalities											
Bengal	1,078,116	111	1,626	168	431	987	190	1,366	181	1,386	2 5
Bihar and Orissa	1,179,855	55	772	78	225	469	109	672	105	667	1 4
Assam	12,552	18	197	57	98	92	60	147	87	100	2 4
Bombay and Sind	2,324,932	153	2,316	387	830	318	457	1,673	197	1,989	3 3
Madras	2,006,686	62	981	77	392	462	137	624	146	816	2 0
United Provinces	8,000,069	86	1,181	93	211	977	175	1,000	134	1,047	2 5
Punjab	1,626,679	104	1,179	217	410	543	237	948	102	1,077	3 5
N W Frontier Province	141,928	6	119	36	83	96	96	83	18	101	4 1
Central Provinces and Berar	890,084	56	762	9	279	483	161	597	71	687	2 11
Burma	689,679	44	580	181	262	97	198	362	160	400	8 2

* 1918-19

* 1912-13

Sanitation.

The history of the sanitary departments in India goes back for about fifty years. During that period great improvements have been effected in the sanitary condition of the towns though much remains to be done but the progress of rural sanitation which involves the health of the great bulk of the population has been slow and incommensurate with the thought and labour bestowed on the subject. The reason lies in the apathy of the people and the tenacity with which they cling to domestic customs injurious to health. While the inhabitants of the plains of India are on the whole distinguished for personal cleanliness the sense of public cleanliness has ever been wanting. Great improvements have been effected in many places, but the village house is still often ill ventilated and over populated, the village site dirty crowded with cattle choked with rank vegetation and poisoned by stagnant pools and the village tanks polluted and used indiscriminately for bathing cooking and drinking. That the way to improvement lies through the education of the people has always been recognised.

Of recent years the pace has been speeded up as education progressed, education developed, and funds were available. In a resolution issued in May 28rd 1914, the Government of India summarised the position at that time and laid down the general lines of advance. This resolution (Gazette of India, May 25th 1914) should be studied by all who desire to understand the present position and policy its main features are summarised here.

The governments in India have moved more rapidly of late. In 1898 the Government of India issued an important statement of policy. In 1908 Imperial grants amounting to Rs 80,00,000 (£ 200,000) a year were made to local Governments. A new department of the Government of India was created in 1910 in order to relieve the Home Department of education, sanitation and some other branches of the administration. In addition to sanitary conferences held by local Governments three All-India sanitary conferences were convened at Bombay Madras and Lucknow respectively over which the Hon'ble Sir Harcourt Butler presided as Member of the Governor General's Council in charge of the department concerned. These conferences were attended by non-officials as well as officials, by laymen as well as professional sanitarians. Again the Indian Re-

search Fund Association has been founded to further the prosecution of research, and the propagation of knowledge and experimental measures generally in connection with the causation, mode of spread and prevention of communicable diseases. To this fund the Government of India make an annually recurring grant of 5 lakhs of rupees (£35,355). Moreover since the constitution of the new department of the Government of India, Imperial grants have been made to local Governments and Administrations to the amount of Rs. 4,61,47,000 (£3,076,466) of which Rs 58,53,000 (£ 388,900) are recurring and Rs. 4,02,94,000 (£ 2,706,286) non recurring. In addition grants amounting to Rs. 82,83 lakhs (£ 548,866) a year have been made to district boards in certain provinces, a substantial portion of which will, it is hoped be expended on rural sanitation. These grants have rendered practicable the execution of schemes which a few years ago seemed beyond the limits of financial possibility and there can be little doubt that the movement for sanitary reform is now well established and progressive throughout the country.

Organisation.—As a result of the Plague Commission's Report Lord Curzon's Government took up with vigour the reorganisation of the sanitary department. Research institutes were started and an appointment of Sanitary Commissioner with the Government of India was created. The functions of this officer were to advise the Government of India upon sanitary and bacteriological questions to settle with local Governments the principles on which an advance should be made and to organise and direct research throughout India. The arrangement was not completely successful. Among the disadvantages, the separation of research from clinical work deterred men from entering the department, and the office work in connection with research prevented the Sanitary Commissioner from undertaking wide and constant touring. The organisation was accordingly modified in 1912. The Sanitary Commissioner is now the independent adviser to the Government of India in all technical and sanitary matters, but all questions of personnel as well as the administration of the bacteriological department and research generally have been placed under the control of the Director General Indian Medical Service, with the Sanitary Commissioner as his staff officer.

The Sanitary Organisation.

The sanctioned strength of the superior sanitary organisation in India now is

(a) A Sanitary Commissioner with the Government of India

(b) A bacteriological department comprising—

(i) thirteen laboratory appointments distributed as follows—

Central Research Institute	1 Director and 8 Assistants.
Bombay Bacteriological Laboratory	1 Director and 2 Assistants.
King Institute of Preventive Medicine, Madras	1 Director and 1 Assistant.
Pastour Institute, Kasauli	1 Director and 1 Assistant.
Pastour Institute, Coimbatore	1 Director and 1 Assistant.

(ii) fifteen new appointments recently sanctioned for the prosecution of research work and direct investigation in the field.

(c) The following establishments under local Governments —

Province	Sanitary Commissioners	Deputy Sanitary Commissioners	Health Officers		Sanitary Engineers	
			1st class.	2nd class	Sanitary Engineers	Deputy or Assistant Sanitary Engineers
Madras	1	3	12	19	1	0
Bombay	1	5	4	9	1	
Bengal	1	6	6	17	1	
United Provinces	1	4	11	17	1	3
Punjab	1	2	2	1	1	1
Burma	1	2	4	16	1	2
Bihar & Orissa	1	1	1	4	1	
Central Provinces	1	1	1	2	1	
Assam	1	1			1	
North West Frontier Province	1	1	1	1		
Delhi	1		3		1	
Total	11	6	40	94	10	18

Provincial Agency.—In their resolution dated the 23rd May 1912 the Government of India provided for a large increase in the number of Deputy Sanitary Commissioners and for the appointment of health officers (of the first-class for larger municipalities and of the second class for the smaller towns) on the lines of detailed proposals received from local Governments. Twelve additional appointments of Deputy Sanitary Commissioner, thirty-five appointments of health officer of the first-class and a large addition to the number of second-class health officers were sanctioned in 1912 and 1913, the entire cost of the additional Deputy Sanitary Commissioners on the basis of the scale of pay fixed for Indians and half the cost of the health officers being met by Imperial grants. The Government of India also advised local Governments to take powers where these did not exist, to require a municipality to appoint a health officer and to veto the appointment of an unfit person. Such powers already exist in the Bombay Presidency and have recently been taken by legislation in Bengal. Simultaneously the Government of India recommended the system in force in Madras whereby every municipality is required to employ one or more trained sanitary inspectors in proportion to population. Sanitary inspectors are now being employed in large numbers in towns. In addition, the civil surgeon in every district is the sanitary adviser of the local authorities and in most provinces controls the vaccination staff. The provision of an increased staff of sanitary engineers is engaging urgent attention.

Voluntary Agency.—The Government of India attach great importance to the organisation of voluntary agencies and have recently made a grant of Rs. 20,000 (£1,333) a sum equivalent to that given by the Bombay Government to the BOMBAY SANITARY ASSOCIATION which was founded in 1903, and now has corresponding branches in several districts and Native States.

Research.—The policy of the Government of India is to keep the control of research under itself but to decentralise other branches of sanitation. The creation of an Imperial depart-

ment is no departure from that policy and the large Imperial grants already mentioned have been made without any interference with provincial Governments. While the general direction of a policy of public health must remain with the central Government, all detailed control and executive action are and will be, left to local Governments. The Sanitary Commissioner with the Government of India is a touring officer empowered to consult and confer informally with local Governments and their officers upon matters connected with sanitation. He is not permitted to encroach upon the authority of Local Governments over the officers under their control.

Provincial Officers.—The position of Provincial Sanitary Commissioners towards the administrative heads of the medical department varies somewhat in different provinces. The Government of India do not wish to interfere with the arrangements which local Governments may consider best suited to local conditions but they desire to insist on the importance of defining the functions of the two officers and securing to the Sanitary Commissioner the position of responsible technical adviser to the local Government in all matters affecting public health.

Sanitary Boards.—In every province sanitary boards have been composed with varying powers, some being merely advisory others having authority to sanction schemes and allot funds. These boards are composed of officers belonging to the medical, sanitary engineering and other branches of the civil services with the addition of non-officials. The Government of India view with favour and confidence the devolution of financial authority and responsibility to these boards and they commend to local Governments the appointment of a permanent salaried secretary to the board where this has not been done. They believe that such an appointment wherever made has resulted in an increase of efficiency.

Training.—Arrangements for training the superior sanitary staff are now engaging the attention of the Government of India. The chief difficulty at present is to provide courses

in practical hygiene and in the study of the bacteriology and etiology of tropical diseases. It is hoped in the near future to make arrangements in India for the former and to utilize the schools of tropical medicine at Calcutta and elsewhere for the latter. Meanwhile, a British diploma in public health is required from candidates for the post of Deputy Sanitary Commissioners and health officers of the first class. The problems of public health in India are vitally complicated by the fact that biting insects are a prominent factor in the dissemination of disease and it is obviously desirable to provide in India, as soon as possible, a complete course of training for sanitary officers.

Training classes for sanitary inspectors are now held in all the more important provinces.

Department of Public Health.—A substantial beginning has thus been made for the development of a department of public health and Indians have been freely enlisted for it. The posts of Deputy Sanitary Commissioner and health officer are now open to Indians. Nine Deputy Sanitary Commissioners out of 23 and the majority of health officers are Indians. The new bacteriological department consisting of 28 officers is also open to duly qualified Indians.

As health officers and Sanitary Engineers gradually relieve Deputy Sanitary Commissioners of much of the drudgery of inspection and routine work, it is hoped that the latter will be set free to deal with epidemics and communal diseases from a higher plane, and to consider issues of public health wider than those which they are able to review to-day. It is therefore important to provide in advance free interchange between them, the laboratory workers and those carrying out practical research in the field.

Progress of Research.—Research is slowly lifting the veil which hides the secrets of disease and mortality and opening up fields of inquiry scarcely thought of a generation ago. The discovery by Sir Ronald Ross of the part played by the mosquito in the communication of malarial and the appointment of the Plague Commission in 1893 are landmarks in the history of Indian Sanitation. In 1902, a research institute was founded at Gubindy in Madras named the King Institute after Lieutenant-Colonel King, O.L.B., I.M.S., in view of his devoted efforts in the cause of sanitation in that presidency. In 1906 Lord Curzon's Government summed up the position and the policy of the Government of India in regard to the establishment of laboratories for the study of problems of public health in India. The functions of the central laboratory were original research, the preparation of curative sera and the training of scientific workers. The functions of the provincial laboratories were diagnosis and special research connected with local conditions. This policy has been steadily developed. The Central Research Institute has been established at Kasauli. The Plague Research Laboratory at Parel has been extended and re-equipped and is now the bacteriological laboratory for the Bombay Presidency and a special one under consideration to attach to it a school of tropical medicine. A research laboratory and school of tropical medicine are under construction at Calcutta. Pasteur Institutes

exist at Kasauli and Coonoor. A third is about to be established in Burma, and it is under discussion to establish others in Assam (where it will be combined with a research laboratory) and Bombay.

Besides the routine work connected with the bacteriological diagnosis of disease, and rabie treatment, the manufacture of various vaccines and sera and general research, these laboratories at different times have been the centres of many special investigations, notable amongst which are those on plague and enteric fever. It is hoped that before long each province in India will have a laboratory fully equipped for research.

Research Fund Association.—The foundation of the Indian Research Fund Association in 1911 has marked an important era in sanitary progress. The control and management of the association are vested in a governing body the president of which is the Member in charge of the Education Department of the Government of India. The governing body is assisted by a scientific advisory board of which not less than three members have seats on the governing body. They examine all proposals for work in connection with the scientific objects of the association and report as to their importance and feasibility. The members of this board are appointed for one year but are eligible for re-election, and they have power to add to their number. The present members are the Director General Indian Medical Service, the Sanitary Commissioner with the Government of India, the Director of the Central Research Institute at Kasauli, the Officer in charge of the Central Malarial Bureau and the Assistant Director General Indian Medical Service (Sanitary). Sir Ronald Ross has been elected an honorary consulting member. The membership of the Indian Research Fund Association is open to non-officials. Every donor of Rs. 5000 is entitled to become a permanent member while every subscriber of Rs. 100 per annum can be a temporary member. Members of the association are entitled to attend and take part in the annual general meeting of the association and to receive copies of the reports and other publications issued from time to time by the association. Although, so far the fund has been financed solely by the Government of India, it is hoped that in time Indian philanthropists will contribute towards the expansion of the association by founding chairs of research by financing experimental research measures and otherwise.

Work of the Association.—The association has been active and can already point to some achievement. Out of an income of Rs. 15 lakhs (£100,000) received since its incorporation and up to the end of 1913-14, an expenditure of over Rs. 14 lakhs (£93,383) has been sanctioned. In 1911, Major S. P. James I.M.S. was deputed to study yellow fever in its endemic area and to draw up proposals for protecting India against the introduction of the disease. Those proposals are still under consideration. In the meanwhile, *stegomyia* surveys have been carried out in Calcutta, Bombay, Madras, Karachi and Rangoon and other seaports. Anti-malaria schemes based on preliminary surveys have been carried out at a cost of Rs. 62,600 (£40,183). Investigations are at pre-

most in progress into the problems connected with the prevalence of cholera, kala-azar, dysentery, leprosy and gonitis, as well as inquiries into the pharmacology of anichona derivatives, the use of hydrocyanic acid gas as a pesticide and the fixation of chemical standards of purity for milk and milk products. Other investigations are under consideration regarding bacteriological standards of purity for water supplies, the different anti cholera vaccines and sera, the methods of water filtration and silt removal best suited to Indian conditions and the etiology of diabetes and the fevers of short duration. These will be started so soon as more trained research workers are available. It is hoped also to carry out during the next non epidemic season, an experiment in plague prevention on a large scale.

Besides financing the investigations conducted by its own staff the association gives grants in aid to outside research on approved lines. The co-operation of other workers has been sought and every encouragement has been given to them. Grants for research have been made, for instance to Professor MacMahon, Dr. Hoesack and Mr. Howlett. The services of Indians have also been enlisted. Dr. Korkie is engaged in an important investigation into kala-azar while Mr. Awati a medical entomologist is employed under the association. The Government of India cordially approve the policy of encouraging private enterprise in the cause of research.

The association has also started a journal for the publication of medical research work done in India—the *INDIAN JOURNAL OF MEDICAL RESEARCH*—published quarterly. The favourable reception which has been accorded to the first three numbers is evidence of the increased interest that is being taken in sanitary science in India to day.

The investigations enumerated above represent the work directly under the supervision of the Government of India. The local Governments also are fully alive to the importance of research, and in seven provinces nine special officers are at present engaged in investigating the causes underlying the local prevalence of malaria and devising suitable schemes for the mitigation of that disease.

Water Supply.—Few subjects have received more attention of late than the provision of a pure supply of filtered water in towns. Complete figures are not available but sums amounting to at least Rs. 3,51,58,297 (£2,343,886) have been spent during the last 20 years on completed schemes. Projects costing Rs. 1,10,03,433 (£693,962) are under construction and projects costing Rs. 1,14,44,750 (£762,985) have been prepared and sanctioned. These figures are exclusive of the expenditure in the Presidency towns and Bangalore.

Drainage.—Drainage schemes on modern lines, are the basis of all sanitary improvement in urban areas. The demand for them is scarcely less than that for piped water and is steadily on the increase. As in the case of water supply complete figures are not available but the known expenditure during the last twenty years has been considerable and is now rapidly increasing. The expenditure on completed works outside the Presidency towns and Bangalore

during that period amounted to Rs. 97,65,046 (£651,009) whereas the cost of the works under construction is estimated at Rs. 1,54,80,503 (£1,028,083). In the beginning precedence over drainage was given to piped water supply but experience has demonstrated the advantage of introducing both concurrently. Without drainage there is no means of carrying off the surplus water and without piped water supply it is difficult to flush the drains properly.

When drainage schemes on modern lines were first started in this country there seems to have been a bias against the use of sewers, and, wherever possible, open drains were adopted. Experience has shown that the preference for the open drain and the fear that sewers would give excessive trouble were not well founded. On the contrary much of the advantage of a drainage system is lost if only open drains are used, as the old system of hand-carriage latrines has to be continued. Moreover economy in establishment is possible only in the case of a sewage system.

Pilgrimages.—Pilgrimages necessitating as they do the collection of large numbers of persons often more than a million at one place at one time have an important sanitary aspect mainly in connection with cholera and other communicable diseases. The Government of India recently decided to examine the sanitary arrangements at the chief places of pilgrimage throughout India and local Governments were asked to appoint provincial committees for this purpose under the presidency of the Sanitary Commissioner with the Government of India with a view to formulate practical schemes of improvement. The inquiry is still in progress but the Government of India have already made a grant of Rs. 2 lakhs (£18,383) and promised an additional grant of 4 lakhs of rupees (£26,666) spread over four years towards the improvement of the pilgrim route to Badrinath and they have made a further recurring grant of Rs. 20,000 (£1,383) a year for the same object. The important question of improving the conditions of the pilgrimage to the Hedjas by Indian Mussulmans is undergoing close scrutiny. The Governor General in Council anticipates that these inquiries will lead to signal sanitary improvements and promote the convenience and comfort of many millions of His Majesty's loyal Indian subjects.

Rural Sanitation.—The following observations are based on practical experience of rural sanitation—

- (a) Travelling dispensaries may be used to spread a knowledge of the simple facts regarding the more common diseases. For this purpose the sub-assistant surgeons in charge should be given a special training in hygiene. Once they become known to the people as healers of the sick their advice as sanitarians may become more acceptable.
- (b) The improvement of the village water supply is as important as it is difficult. Apparently excellent results have been obtained by disinfection of wells with permanganate of potash. Experiments are being made in different

parts of India in the use of tube-wells, etc. It might serve as an useful object lesson to use pumps and tube-wells for the provision of water at fairs, schools, hospitals and local public offices. In some localities a tank supply alone is possible and the difficulty is to protect even new tanks from pollution.

(c) In several provinces, notably in Madras village unions or circles have been formed and their committees entrusted with small grants for the improvement of the sanitation of the village site. This measure might be extended experimentally elsewhere. It is calculated to encourage discussion and inquiry regarding sanitary work.

(d) Village midwives are in some districts encouraged by small grants of money and rewards to attend at the head quarters hospital for a short and simple

course of training. These measures open up possibilities with reference to a reduction in infantile mortality and children's diseases generally.

(e) In most districts in India, the civil surgeon is also in theory the sanitary officer of the district. His duties at head quarters however do not allow him to tour and inspect in the district to the extent that is necessary even in the case of epidemics in the district. It is sometimes not possible for him to leave headquarters. In some provinces, district sanitary officers have been appointed and there can be little doubt that many more such appointments are required and that one of the most urgent and hopeful measures for promoting rural sanitation is the appointment of well qualified and whole-time district health officers to control and organise all sanitary arrangements and experiments in the district.

Birth and Death Rates.—The population of the areas in which births and deaths were registered was 288 323 865 according to the census of 1911 and the number of births registered in 1913 was 89 87 per mille compared with 88 95 per mille in 1912 and an average of 88 37 per mille in the five years 1908-12. The total number of deaths was 6845,018—28 72 per mille, as compared with 28 71 per mille in 1912 and 32 77 for the five years 1907-11. This was the lowest rate since 1898. The rates for the provinces are given in the following table.

Province	Birth Rates (per mille)		Death Rates (per mille)					
	1912.	1913	1912.			1913		
			Urban	Rural	Total	Urban	Rural	Total
Delhi		44 8	43 7	83 0	39 3	44 2	35 1	40 0
Bengal	85 3	33 7	24 5	30 1	29 8	24 9	29 7	28 4
Bihar and Orissa	42 0	42 1	30 0	31 0	31 0	24 4	29 2	26 1
Assam	32 2	38 1	20 8	25 1	25 0	21 2	27 8	27 7
United Provinces	40 4	41 7	34 4	26 6	29 9	39 4	24 5	34 8
Punjab	45 3	45 4	31 9	26 1	26 6	35 7	29 7	30 2
N. W. Frontier Province	37 1	36 2	22 7	23 5	23 4	24 3	24 7	24 7
Central Provinces and Berar	48 2	49 3	47 6	41 8	42 3	30 9	30 2	30 3
Madras	30 9	32 2	23 6	23 3	24 3	26 2	20 3	21 4
Coorg	26 32	25 9	64 1	36 8	38 4	47 6	32 6	35 5
Bombay	85 0	85 0	41 5	33 8	34 9	32 0	25 4	26 7
Burma Lower	31 7	31 7	37 2	24 4	26 0	32 9	22 2	23 6
Burma Upper	33 0	34 2	44 1	27 5	29 0	33 3	26 5	27 6
Ajmer Marwar	47 08	43 2			38 3			25 9
Total	38 95	39 3	33 1	29 4	29 7	31 0	28 5	28 7

The most striking feature was the diminished death-rate in the Central Provinces where cholera and malaria had prevailed in 1912, and in Bombay where cholera showed a marked decrease. The increased death rate in the United Provinces and the Punjab was due chiefly to fevers which had shown an exceptionally small mortality in the previous year. The reduced birth rate in Bengal is attributed to the rise in prices.

The excess of births over deaths ranged from 10 per mille in the Central Provinces to 4 3 per mille in Bengal. The mean percentage of male to female births ranged from 126 5 in the North West Frontier Province to 164 in Bihar and Orissa.

The greatest mortality occurred in December while the lowest was in February. Infantile mortality was highest among the major provinces in Upper Burma, the Central Provinces, and the United Provinces. The total rate per mille for all India was 182 male and 197 female. strenuous efforts are being made to reduce these figures which, though still excessive, show a welcome decrease.

Urban Vital Statistics.—The following table gives the ratio of deaths per mille in cities of British India whose population exceeded 150 000 in 1911 —

	Death Rate per Mille			Death Rate per Mille	
	1908-12 (Mean Rate)	1913		1908-12 (Mean Rate)	1913
Calcutta	29 0	29 2	Delhi	40 7*	40 0
Bombay	37	32 7	Lahore	30 7	38 1
Madras	40 0	40 3	Cawnpore	58-0	45 1
Lucknow	61 8	47 0	Agra	29 7	22 0
Rangoon	58 2	59 4	Ahmedabad	58 5	39 6
Howrah	28 4	30 5	Allahabad	21 9	17 4
Banaras	58 2	50 9	Amritsar	50 4	40 9

* Rate for 1912.

Chief Diseases.—There are three main classes of fatal disease—specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers, and other indications of scurvy widely prevail. Much of the sickness and mortality is due to deficient powers of resistance and to insanitary habits and surroundings. The table below shows the number of deaths from each of the principal diseases recorded in British India and the death rates per 1,000 during the three years from 1911 to 1913.

Years	Small pox	Cholera	Fevers	Dysentery and Diarrhoea	Plague	Respiratory Diseases
1911	58 338 25	354 005 1 48	4 207 3 6 17 63	259 636 1 06	733 582 3 07	223 322 0 54
1912	89 35 37	407 709 1 71	3 936 085 16 49	292 16 1 22	263 077 1 10	247 736 1 04
1913	98 155 41	294 91 1 24	3 983 112 16 71	346 578 1 08	198 456 0 83	237 229 1 000

With regard to special diseases, cholera is much less prevalent than formerly. In 1913 it occurred chiefly in Bengal and Bihar and Orissa. Plague forms the subject of a separate section. When reference is made to fever in India, malarial fever is generally understood, but many causes of death and many diseases much more fatal than malarial fever are included under the heading. The fever death rates as usual, varied greatly, ranging in the major Provinces from 23 9 in Bengal to 6 7 in Madras. The malaria section of the Indian Research Fund Association is housed at Kasauli, but has a field-laboratory in Delhi where classes are held. In 1913 58 doctors underwent instruction at these classes. Anti malarial operations and mosquito surveys are being carried out by special officers in practically all the provinces. It has been proposed to send a small deputation to study anti malarial measures in Italy. The measures adopted to fight malaria are the sale of quinine at cheap rates and the extirpation of mosquitoes by such methods as drainage, petrolage and jungle clearing.

Vaccination.—The total number of vaccinations performed among the civil population during 1914-15 was 3 877 086 being a slight decrease from the previous year's work. Of primary vaccinations 96 95 per cent. and of re vaccinations 69 66 per cent. were successful, about 36 19 per mille of the population were successfully vaccinated. The number of infants successfully vaccinated was 46 88 per cent. of the number under a year old. Arm-to-arm vaccination has of late years been steadily replaced by the use of pure calf lymph. All the larger provinces have, or will shortly have, their own calf lymph depots.

Plague.—The present epidemic of plague in India first broke out at Bombay in August 1906, and as the table below shows it has been responsible for a heavy rate of mortality since that date. In 1907 the deaths from plague attained the highest total yet recorded, viz. 1 315 892, for India as a whole, the number in British India alone being 1 166 223 or 5 16 per mille. In 1908 the mortality declined enormously falling to 156 480 the lowest total since 1900. In 1909 there was once more a relatively low mortality, viz. 178 808 deaths or fewer than in any year since 1900, excepting 1908. In 1910 and 1911 there was a severe recrudescence, especially in Bengal, the United Provinces and the Punjab. In the latter part of 1911 and in 1912 the virulence of the epidemic abated, and the 1913 figures show a still further fall. In 1914 there was a rise owing to a recrudescence of the disease in Bombay and in 1915 there has been a serious recrudescence in the Punjab.

Plague is so local in its visitations that all general and unanalyzed statistics are likely to prove misleading. Many parts of India have been almost entirely free from its ravages, and in the greater part of the country the outbreaks cannot be described as having been severe or disastrous. On the other hand, general statistics tend to conceal the severity of the distress caused by the disease in particular districts. In some parts of the Punjab and the United Provinces the mortality has been specially severe.

1896-97	57 543	1907	1 815,892
1898	116 286	1908	1,6,480
1899	139 009		
		1909	178,908
1900	92,897	1910	512,605
1901	282,027	1911	846,878
1902	576,365		
		1912	306 488
1903	888 076	1913	217,866
1904	1 143,923	1914	286 897*
1905	1 066,140		
1906	856 721		

* Preliminary figure.

The reasons for this uneven incidence are at present somewhat obscure. The mortality in Eastern Bengal and in Assam has been at no time appreciable, largely it is believed because the habits of the people and the structure of their houses are unfavourable to the breeding of rats while in the Madras Presidency and in Burma the epidemic has never reached serious dimensions. How far the comparative immunity of Madras is due to a policy of segregation and surveillance and how far to climatic conditions is undecided.

The Advisory Committee on Plague Investigation in England and the Plague Commission in India whose constitution has been described in former issues of this Report have concluded their investigations which have led to most important results. The main facts in regard to the mode of propagation of an epidemic and the life history of the plague bacillus have been ascertained and rational methods of attack have thus been made possible. It is now generally agreed (1) that epidemic bubonic plague in man is directly dependent on epidemic plague in rats (2) that the vehicle of contagion between rat and rat and between rat and man is the plague infected rat flea (3) that bubonic plague is not directly infections from man to man and (4) that the life of the plague bacillus outside the bodies of men, animals or fleas is of short duration. In large towns plague may persist through the year but in villages such persistence is exceptional, and the recurrence of an epidemic is probably due to fresh infection.

In the light of the knowledge and experience now acquired it is possible to deal satisfactorily with the disease when effective control can be established over the sanitary conditions and in the case of the native army and in limited areas such as jails there has been remarkable success. But attempts to establish such control over large areas would involve too great an interference with the habits, prejudices, and sentiments of the people and the application of measures of proved utility must depend upon the particular circumstances of each locality and upon the character of its inhabitants. In the face of great practical obstacles three principal measures for combating plague are now adopted—

- (1) The temporary evacuation of quarters in which plague is prevalent
- (2) Inoculation with the prophylactic fluid.
- (3) The systematic destruction of rats

Hospitals, Dispensaries, Asylums.—The following table gives figures for Indian hospitals under three heads. The institutions grouped under Heads (1) and (3) are generally speaking, for the general public. Those under Head (2) are for special classes of persons such as railway servants, policemen, &c.

	(1) Civil Hospitals and Dispensaries (State Public Local Fund and Private-aided)			(2) State Special and Railway Hospitals			(3) Private Non-aided Institutions		
	No of Institutions.	No of In-patients.	No of Out-patients.	No of Institutions.	No of In-patients.	No of Out-patients.	No of Institutions.	No of In-patients.	No of Out-patients.
1911	2,733	492,798	29,356 763	825	93,850	2,154 234	689	51 799	4 774 387
1912	2,820	615,062	30 082,547	851	96 171	2,331 069	69	57 252	4,828,367

Lunatic Asylums.—The treatment of lunatics at asylums prevails on only a small scale in India, where insanity is less prevalent than in European countries. The census of 1911 showed an increase of nearly 22 per cent. in the number of insane since 1901. The number admitted into asylums in 1913 was 1,327 as against 1,931 in 1912. The total asylum population of the year was 8 472. A new asylum has been opened in Bombay.

The Tropical Diseases

This account of the chief tropical diseases was written by Major Gordon Tucker M.S. of Grant Medical College —

If the principal scourges of the European in the tropics namely malaria, dysentery and typhoid could be removed there would still remain the strain of climate as a source of disease and a cause of deteriorated health not amounting for a time to actual illness, but eventually showing its effects in lessened resistance to the wear and tear of life, premature senility of the tissues and diminished fertility. This results mainly from the transfer to a hot climate of an individual whose heat-regulating mechanism has previously adapted itself to conditions where the body temperature has to be maintained some 40° above that of the surrounding air. On arrival in a country where the temperature of the air is perhaps the same as that of the living tissues it is obvious that there must be a sudden and violent disturbance of such mechanism. This mechanism is very complex and exists for the purpose of striking a balance between the heat formed by the changes in the tissues and the heat lost from the lungs and by radiation from the surface of the skin. But beyond this there is no doubt a regulation of the temperature dependent in some way on the normal working of the central nervous system as is shown by the remarkable alteration which may take place in the temperature of parts of the body when the brain has been subjected to some gross lesion.

In the tropics the amount of carbonic acid given off by the lungs is reduced about twenty per cent, the number of respirations per minute is reduced and there is lessened activity of the lungs. This shows that there is less tissue change (or combustion) going on in the tissue that is to say diminished heat production. The same is shown in the diminished amount of work done by the kidneys. As regards heat loss this is almost entirely effected through the skin 70 per cent of the heat of the body in temperate climates going off by radiation and conduction and 15 per cent by evaporation. When however the temperature of the tropical atmosphere rises the loss by radiation falls to nothing and all the heat has to be dissipated by evaporation from the surface. Consequently practically all the work of losing heat which strikes the balance with the heat production and maintains the body at a normal temperature, falls upon the sweat glands which are therefore in a state of continued and abnormal activity. In hot dry atmospheres the water evaporates as soon as formed but in conditions of heat with great humidity such as obtain during the worst months of the year in Calcutta and Bombay the skin is kept continually moist by trickling beads of perspiration. Herein lies the comfort and heatlessness of the punkah which removes excessive moisture. But it is obvious that in order to keep the temperature of the body normal there must be increased flow of blood to the surface of the body a state quite different from the conditions under which the organs of the European have been trained. This favours those sudden chills to which Europeans are so sub-

ject and acts prejudicially to the working of the internal organs especially those ansering digestion. A blast of cold air coming on the congested skin in the early hours of the morning must chill the surface causing a sudden contraction of the cutaneous vessels and tending to produce a rapid flux of blood to the deeper parts, inducing a congestion of the mucous membrane of the bowels and from that results the morning diarrhoea which is occasionally severe and exhausting. Such a state of affairs may become chronic and so lead up to one of the climatic diarrhoeas which are a frequent cause of invaliding. Moreover a sudden congestion of the liver and spleen in a person who has had malaria may be followed by a malarial hepatitis or splenitis and repeated attacks of these conditions may result in permanent enlargement of these organs or at any rate in the case of the stomach and liver to degeneration of function and so to chronic dyspepsia or insufficient manufacture of bile.

Again the chronic hyperæmia of the skin favours the development of fungi and microbes. Hence the existence of ringworm of various kinds from which Europeans frequently suffer. There are microbes which even in temperate climates are found within the layers of the skin or on the surface. On account of the chronic congestion and moisture of the skin in tropical climates these microbes not only become abundant but virulent and hence the Boils which are often a serious affliction in the hot months. We frequently come across most distressing cases where the patient is covered from head to foot with them. When the boil comes to a head and softens it is easy to afford relief by opening each and so relieving tension, but the worst kind is the "blind boil" which forms as a hard red mass intensely painful and not coming to a head and here an incision gives little relief. Until lately these cases were very unsatisfactory to treat and patients would recover after weeks of pain and much reduction in health. Fortunately we have in the vaccine treatment a most successful method the vaccine used being either a stock one and generally acting like magic or in a small percentage of cases requiring to be made from the boils themselves. In still other cases the infection of the skin causes the formation of carbuncles which are more serious but require treatment on the same lines.

Another more common condition resulting from the congestion of the skin is PRICKLY HEAT. This results from acute inflammation about the sweat glands and distention of their orifices producing red papules and little vesicles the site of intense itching. The trouble is believed to result from the proliferation of a particular microbe in the skin which alters the reaction of the perspiration. Be this as it may inoculation of the skin is likely to take place through scratching, and so to the formation of boils. In some cases the skin is so intensely inflamed that the region of the shoulders and neck feels like leather or the surface gives the impression of sand paper. It is a serious condition in young infants as

the irritation prevents sleep, interferes with digestion and so promotes diarrhoea, so that this simple malady may be the starting point of a dangerous illness. Flannel next to the skin should be avoided in the hot weather as it is so liable to start the irritation. A good lotion consists of two teaspoonfuls of Eau-de-cologne in ten ounces of a 1 in 2000 solution of perchloride of mercury dabbed on the skin and allowed to dry followed by dusting with equal parts of boric acid powder and talc.

To avoid the heat the European flies to the punkah. The electric punkah has been one of the greatest blessings introduced during recent years into Indian towns as its use insures a good night's rest in place of the weary hours of sleeplessness which formerly wore out the temper and the mental energy of the European during the hottest months. Still this blessing is not without its attendant dangers. Most common are attacks of neuralgic rheumatism sudden internal chills causing diarrhoea attacks of colic ordinary nasal catarrh, and sometimes bronchitis or pneumonia. The electric punkah does away with the mosquito curtain which does not conduce to the free circulation of air and gives good ventilation in its place.

Finally we have the effects of a continued high temperature on the working of the nervous system. As has been remarked by the late Lt.-Col. Crombie F.R.S. (in a valuable paper on "The measure of physical fitness for life in the Tropics" to which this writer is much indebted) "In the tropics there is going on continually and unconsciously a tax on the nervous system which is absent in temperate climates. The nervous system, especially those parts of it which regulate the temperature of the body are always on the strain and the result is that in time it suffers from more or less exhaustion. The mean temperature of a European in India is always about half a degree higher than it is in a temperate climate and it may be raised to 99° or 100° after severe bodily exertion. When under the strain of a severe hot moist and sultry season the heat centre gives out or as it is said is inhibited, we have all the serious phenomena of Heat Stroke. But in the less marked but long

drawn out process of nervous exhaustion we have the common tropical effect of deficient mental energy, generally commencing with an natural drowsiness or loss of appetite and a yearning for stimulants, which culminate in that lowering of nerve potential which we know so well as NEURASTHENIA. This nervous disturbance due to climate is likely to be most marked as Crombie points out, in two classes of persons namely those who suffer from obesity and those who are members of families which may be designated as neuropathic that is whose nervous systems are naturally unstable. To these may be added persons with naturally defective digestion and those who have a predisposition to gout.

To sum up it will be seen that the effects of long residence in the tropics are real and permanent not only in the direction of lowered bodily health but in undue wear of the nervous system, which may not only be apparent during active service in duties involving strain, anxiety or responsibility but also after retirement so that the chances of longevity of the retired Indian official are not up to the normal, and the extra which the Insurance Office puts on such lives is not only to cover the risks incidental to life in the tropics but also the diminished vitality of those who have survived to enjoy their pension and ease.

But there are other Indian risks and these are most likely to affect travellers due to the effects of heat on food. Microbes multiply in profusion in milk and decomposition is liable to occur in meat within a very short time after killing. Milk should always be boiled and owing to the dirt in railway dining rooms and in many hotels and the carelessness of the lower type of native servant employed therein it would be better to rely on tinned milk or on a supply of Horlick's milk tablets when travelling long journeys by rail and in the smaller towns. Beef should never be eaten underdone as it is a prolific source of tape worms in India. There is also liability to contamination of food by flies and dust. Indian cooks, though among the best, have little regard for sanitation and consequently the state of the cook house should be carefully supervised.

MALARIA.

Attacks of malaria, dysentery, and enteric represent the principal risks to the European travelling in India. Malaria is the commonest cause of fever in the tropics and subtropics, but the risks therefrom have been greatly diminished by our complete knowledge of its causation which now permits an intelligent prophylaxis that is taking adequate precautions against infection. The connection of certain kinds of fever with marshy soils has been recognised from ancient times whence its old name of paludism and the word malaria itself implies the belief in the existence of an emanation of poisonous air from the water logged ground. It is now realised that the poison is conveyed solely by mosquitoes and by the anopheline species. There are only a few of the many anophelines which carry malarial, but all are to be regarded as dangerous.

The parasite of malaria is a delicate jelly

like body which invades the red cells of the blood, and lives at their expense. It has two life cycles, one within the blood of the human host (endogenous and sexual) the other in the stomach and tissues of the mosquito (exogenous and sexual). But the first part of the sexual cycle is prepared for in the blood of the human host.

If the blood of a patient be taken about an hour before the occurrence of the rigor (the shivering fit which marks the commencement of the attack) and examined in a thin film under a high power of the microscope some of the red corpuscles will be found to contain bodies composed of delicate protoplasm showing minute granules of dark pigment in their substance. These bodies are the parasites. The granules represent the result of the destruction by the parasite of the red colouring matter of the blood-cell. The

latter consequently appears paler than natural and is enlarged. In the parasite of the so-called benign tertian fever, if the blood be again examined when the rigor is commencing, the little mass of jelly is found to have divided into from twelve to twenty minute spheres all held together by the remains of the degenerated red cell, and with minute masses of pigment in the centre. Later the group of spherules has burst through the envelope that held them, and has appeared free in the blood fluid. Many of these free spherules are attacked and absorbed by the phagocytes, but those which escape destruction effect their entrance into other red blood cells and go through the same process of sexual division taking forty-eight hours for the process. On the time taken for this cycle to occur depends the periodicity of the fever, the attack appearing every third day, whence the name tertian fever. Another variety of malarial parasite not very common in India, takes seventy-two hours to complete its cycle hence called the quartan variety.

There is also a third kind of parasite called the malignant tertian, called by the Italians the aestivo-autumnal parasite, which also takes forty-eight hours to go through its cycle but which gives rise to a more irregular fever and has more pernicious effects on the system and is also liable to produce severe nervous symptoms such as unconsciousness often ending in death with very high fever. Each kind of parasite has its special characteristics which can be observed by microscopical examination. Consequently expert examination of the blood is always advisable in cases of fever not only to show that malaria is present but also to distinguish the particular kind which is causing the trouble.

Within the blood there also appears the first stage of the sexual life of the parasite in the shape of male and female elements which result from some of the parasites which do not undergo the usual segmentation described above, and which exist for the purpose of allowing further development in the non-human host which in the case of this particular parasite is the mosquito. These sexual elements are especially in evidence in the blood of cases of the pernicious variety of malaria in the form of crescentic bodies which obtain considerable protection from the phagocytes and many therefore persist for some time in such blood. Crescents appear only in malignant fevers and persons who harbour them are of course a danger to the community inasmuch as the mosquitoes of the locality are infected from them thus rendering such village or street unhealthy from malaria.

The sexual elements of the malarial parasites when taken into the stomach of the mosquito which sucks up the blood of its victim undergo certain changes, the male element extruding flagellate or hair-like processes which fertilise the female. The latter thereupon changes into a body endowed with the property of locomotion which makes its way into the coats of the stomach of the insect and becomes divided up into a vast number of minute cysts, each of the latter becoming packed with minute rod-like bodies. The cysts rupture into the body-cavity of the mosquito, and the rods thereby set free, be-

come collected within the substance of the salivary glands, and ultimately make their way to the base of the proboscis. On such an infected mosquito pushing its proboscis into the human skin when it wishes to draw blood some of the rods are injected into the blood stream. They then enter red blood corpuscles and go through the various cycles described above.

From three to five days, or as long as a fortnight, after being bitten by such a mosquito the patient has an attack of fever, sometimes preceded by pains in the limbs, headache, and malaise. This is soon succeeded by a feeling of intense chill perhaps associated with vomiting. The skin becomes cold and blue the shivering is excessive and prolonged, constituting the rigor stage. In this stage the patient is in great distress and obtains little sense of relief from the blankets which he heaps up over himself. Although the surface of the body is very cold the temperature taken in the arm pit or mouth shows a rise to 103 or higher. In a quarter of an hour or more the 'hot stage' comes on the face becoming flushed the surface of the body red and warm the small quick pulse becoming full and bounding and perhaps the patient complains of throbbing headache. He remains thus for a few hours and then occurs the sweating stage perspiration breaking out about the head and face and soon extending to the whole body. Great relief is experienced when this is entered on and is likely to be followed by a refreshing sleep. During the paroxysm the spleen is often enlarged and may be the seat of considerable pain. There is also often troublesome cough from a concomitant bronchitis. With repeated attacks the enlargement of the spleen is liable to become permanent, the organ coming to form a large heavy tumour with special characteristics, the so-called 'ague cake', which is common among the children of malarious districts. Europeans who suffer from severe or repeated malaria are likely to suffer from permanent ill health in the shape of anemia, dyspepsia, or easily induced mental fatigue.

Treatment

The traveller in India should endeavour to guard himself against the bites of mosquitoes. This can be done to a great extent by the use of mosquito curtains, the mosquito seeking the blood of its victim mainly at night. But when travelling by train protection is difficult. There are some odours which mosquitoes appear to dislike. Sprinkling the pillows with lavender water is sometimes efficacious, or smearing the hands with lemon grass oil. Camps should not be pitched in the neighbourhood of native villages if it can be avoided. Travellers should provide themselves with thermometer and a supply of quinine tablets.

During the cold stage the patient should be well covered, and hot fluids administered, on less vomiting is present. Quinine should not be taken in this stage as it increases the distress. A diaphoretic, or sweating mixture, should be administered every two or three hours until the skin becomes moist, and throughout the hot stage this soon gives relief, and when the stage of perspiration has been reached, tea

grains of quinine should be given and repeated in five grain doses every six hours until the temperature becomes normal. Thereafter the drug should be continued for a few days in doses of five grains twice a day. This is calculated to ward off a second attack, or at any rate, to reduce its severity and prevent a third. If there is vomiting, quinine tablets are not likely to be digested and absorbed. In such cases the drug should be given in a mixture dissolved in a dilute acid. The advantage of quinine tablets is that the unpleasant taste is avoided.

There are some severe continuous malarial fevers which appear to resist the action of quinine. These are the pernicious tertian fevers which so often cause difficulty in diagnosis inasmuch as for a few days they may suggest enteric fever especially to those inexperienced in tropical diseases. In such cases large doses of quinine are required, the

skin being kept moist meanwhile by a dilute phosphate mixture. Some of these fevers last for a week or longer but the majority of them yield to quinine in three or four days. It is in such that an early examination of the blood is so useful. In certain cases of profound malarial poisoning or where for any reason, quinine does not appear to be acting when administered by the mouth, recourse must be had to the injection of quinine into the tissues. This should always be done by a skilful physician and with special precautions, as some cases of tetanus have occurred after quinine injections taken from stock solutions even when apparently given with every care. The vapourizer prepared by Messrs Burroughs Wellcome & Co which consists of little glass capsules containing preparations of the drug dissolved in sterile and non-irritating fluid, appear to be absolutely devoid of risk and are very efficacious.

TYPHOID FEVER

By Typhoid or Enteric Fever is meant a continued fever lasting for three weeks or longer due to the entrance into the intestinal canal of a particular bacillus (the typhoid bacillus) which not only produces venous abdominal trouble but also symptoms referable to a generalised infection of the blood by the bacillus and the poison which it engenders. Formerly the scourge of the British Army in India especially among the younger soldiers it has been reduced to a very low point through the prophylactic use of Sir Almroth Wright's vaccine continuous attention to the sanitary condition of the soldiers' quarters, improvement of water supplies and skilful medical treatment.

Paratyphoid is a term applied to certain fevers which have all the characters of typhoid but with a rather lower mortality, and which are due to infection by bacilli which are closely related to the typhoid bacillus.

The fact that typhoid more frequently attacks the new arrivals to the tropics renders this disease one of the risks which tourists have to face but this can be minimised by knowledge of the manner in which the typhoid bacillus affects an entrance into the system.

Typhoid Fever has now been shown to be a common affection among Indians contrary to what was held some fifteen years ago. In Bengal and the Punjab according to Leonard Rogers (Fever in the Tropics) the maximum of cases for all classes occurs during the hot months, while the maximum for Bombay is in the rainy season. But taking the European cases only he finds that the largest number of cases falls within the dry cold and hot seasons and considers that this is due to the European being most frequently infected through contaminated dust, this class of person paying greater attention now-a-days to the condition of the water which he drinks unlike the Indian who will drink water out of the nearest tap.

As is well known, infection of typhoid is most commonly produced by contamination of drinking water. Great care is therefore necessary in boiling and filtering drinking water and in protecting the vessels in which

it is kept from contamination by dust. In the neighbourhood of all native villages the soil is laden with animal dejecta which of course is very likely to be associated with disease-producing microbes. Hence infection of the food in cook houses and shops is easily produced by the wind carrying the dust from latrines and other foul areas. Uncooked vegetables produced from gardens watered by sewage-containing fluid are also very dangerous, and should be avoided by the Indian traveller. Lastly oysters taken from estuaries which receive rivers laden with organic matter from the villages on the banks are believed to afford special protection to the typhoid bacillus, and when eaten raw are dangerous.

In many cases the onset of the disease is sudden with headache, shivering and vomiting but in a little less than half the onset is insidious the patient being out of sorts slightly feverish perhaps with occasional looseness of the bowels, loss of appetite and a little sickness. He ultimately takes to his bed, generally dating the commencement of his illness from this event and there forthwith begins a period of at least three weeks of anxiety for his friends and relatives inasmuch as enteric fever as seen among Europeans in India is characterised by its greater severity and longer duration. The temperature rises gradually day by day during the first week remains at a fairly constant high level during the second, becomes irregular with daily remissions during the third, and in the majority of cases is succeeded by a period of convalescence, during the first part of which the greatest care in dealing with the patient is required. The bacillus produces its most important effects on the lower portion of the small intestine certain glandular structures in the wall of the bowel becoming inflamed, enlarged and finally ulcerated. It is on the formation of these intestinal ulcers that many of the worst complications depend. The ulcerative process favours, first a looseness of the bowels later an exhausting diarrhoea. Moreover the destruction of some of the coats of the bowel may open up an adjacent blood vessel and produce alarming or even fatal hæmorrhage. And again the whole thickness of the bowel may be perforated, causing death

from collapse and peritonitis. This is the danger which the physician has in view throughout the case. It can only be guarded against by the most careful nursing and attention to the dietary. Other dangers are bronchitis and failure of the heart especially during the third week. During the stage of convalescence the same care has to be taken with the dietary as the ulcers are undergoing healing and an error might lead to the rupture of one of them when all danger may well be expected to have passed. Finally owing to the depressing effects of climate convalescence is often attended with prolonged mental depression.

In the matter of treatment it is absolutely essential that the patient should have the benefit of skilled nursing. Fortunately highly trained European nurses can now be obtained from any populous centre though occasions arise when the demand exceeds the supply. If possible two nurses should be obtained for day and night duty respectively. Unless it is absolutely necessary to remove him the patient should be nursed where he falls ill and not sent long distances by train. At the most he should travel to the nearest large town where there is a Civil Surgeon. Treatment mainly consists in keeping the fever within bounds, and thereby sparing the strain on the heart which is great during the three weeks of continued fever. This is effected in great part by the system of hydrotherapy that is treating the patient by continued tepid baths or by frequent sponging with tepid water to which a little toilet vinegar should be added. There is no special drug which is of any use

in aborting the fever but this does not mean that drugs are of no use in typhoid. On the contrary the complications which are many, will be detected as they arise by the careful physician, and there is no disease which tries more than this the skill of the doctor and the care of the nurse who will frequently bring to convalescence what seems to be an almost hopeless case. Abdominal distension for instance, is a frequent and serious complication in Indian typhoid, and should be treated as soon as detected. It results partly from the decomposition of the intestinal contents, partly from loss of the muscular tone of the bowel. It hinders the respiration and the action of the heart and favours the occurrence of perforation. Diet consists almost entirely of milk, either pure diluted with barley water or whey or as a jelly.

Lastly a word should be said about the importance of typhoid inoculation to those intending to travel in India or the tropics. It is better to have Wright's prophylactic vaccine injected before leaving home but if this is not done it should be submitted to on arrival in Bombay. In the majority of cases the only discomfort resulting is a little passing tenderness at the site of inoculation. In some cases there are a few hours of fever and in the worst the patient feels out-of-sorts for twenty-four hours. The inoculation (with a larger dose) should be repeated on the eighth day. Attention to this small precaution as a routine measure would obviate most of the cases in places which we witness on occasions among globe-trotters who have come to the country for pleasure or health.

DYSENTERY

The term Dysentery is applied to several forms of infective inflammation of the large bowel, in which the principal symptoms are gripping abdominal pain, frequent straining and the passage of a large number of evacuations characterised by the presence of blood and mucus. The changes which take place occur in the mucous membrane of the large bowel and are first an acute catarrh succeeded by ulceration more or less extensive and sometimes going on to gangrene.

The disease is endemic in India and is in fact common in Eastern countries, and in Egypt. It is liable to arise in epidemic form especially among armies in the field. It is caused by a contaminated water supply and by the infection of food by dust and flies. Dysentery is probably caused by several varieties of micro-organisms but for all practical purposes may be said to be divided into two great groups, one due to the amoeba of dysentery and the other caused by a bacillus described by Shiga and known as bacillary dysentery. The latter form is more common in Japan and in the north-eastern side of the Indian peninsula the amoebic form being that most commonly seen in the Bombay Presidency. The bacillary form is characterised by the presence of a very large number of evacuations perhaps as many as a hundred or even more in the twenty-four hours. In the amoebic form there are seldom more than twenty evacuations in the day and there is less fever and general depression than in the

bacillary variety. In the amoebic form there is greater tendency to thickening of the bowel wall and to the dangerous complication or sequel of abscess of the liver.

After a few days of severe illness should the patient recover there is a danger that the disease may become chronic a condition which is associated with emaciation and profound weakness. The chronic form is also more likely to eventuate from the amoebic type.

The frequency with which it attacks Europeans in India may be judged from the admissions of the European soldiers into hospital, the figures of admissions for each of the years 1910 and 1911 being 7.7 per thousand of strength.

The treatment of the bacillary form with an anti-dysenteric serum has had good results. In the amoebic form most Indian physicians still rely and rightly so on the use of Ipecacuanha. This has to be given with particular precautions and with a previous dose of opium to diminish the liability to vomiting. Recently thanks to the work of Leonard Rogers a valuable drug has been placed in our hands, in the form of emetine an alkaloid derived from the Ipecacuanha root, and which when injected into the deeper layers of the skin, gives all the good results of Ipecacuanha without its unpleasant effects. It is of special value in the case of children in whom acute dysentery is a very serious disease. We have hereby obtained one more efficient weapon in the contest with one of the common diseases of India.

ABSCESS OF THE LIVER.

There are several varieties and causes of abscess of the liver but the term is applied in India to the single abscess which frequently forms as the result of amebic dysentery the latter generally preceding but sometimes being concomitant with the formation of the abscess. It is one of the scourges of the European in India, and is especially to be dreaded on account of the high mortality. Taking all the cases together including the acute and chronic and all classes of the community the death rate is about sixty per cent. but this will probably be reduced by recent improvements in the methods of diagnosis and treatment. The latest annual report of the Sanitary Commissioner with the Government of India states that next to enteric fever hepatic abscess is the most frequent cause of death among European troops, but the admissions and deaths on account of it have decreased greatly during recent years. The report also notes that the decrease in the number of cases of liver abscess is coincident with an equally steady fall in the number of admissions to hospital for alcoholism.

The disease is most liable to attack those who in addition to having had an attack of dysentery have indulged not necessarily to excess in alcohol and general good living and are at the same time somewhat sluggish in their habits. It is often preceded by continued fever, malaise, dyspepsia, and more or less uneasiness in the liver region or the latter organ may be acutely enlarged and very tender. In many cases the exact diagnosis is often a

matter of anxiety but greater precision is now possible as we have come to recognise what Rogers has called the presuppurative stage of amebic hepatitis which is very amenable to treatment by Ipecacuanha or injections of emetine. The use of this method will often prevent the case going on to the dangerous condition of abscess, which when it has once definitely formed can only be dealt with by prompt operation which in itself has a high mortality. Further aid is now obtained by special examination of the blood and by the use of the X rays which will often clear up a doubtful case.

The abscess generally forms in the right lobe of the liver. Should it form on the left side it is especially liable to rupture into one of the internal organs.

The same complication may eventuate when the abscess forms on the right side. Here the principal point of rupture is into the right lung the contents of the abscess being suddenly evacuated in some cases without much warning and nature thereby effecting a cure. Such a termination however is not desirable as healing will take place quicker by surgical means.

There are some abscesses which are exceedingly insidious, it often happening that patients are sent home with a fever associated with general loss of health and weight where the existence of a deep seated abscess may not even be suspected but in which the symptoms of hepatic abscess suddenly occur and clear up the case or the correct diagnosis may obscure itself by the sudden rupture as above described.

PLAGUE

Plague is a disease of very great antiquity. Its ravages and symptoms have been described with remarkable accuracy by the old historians such as Procopius. Not many years ago it appeared to be a disease of historical interest only but the present pandemic which commenced about 1894 has made it a subject of the greatest importance to the inhabitants of the British Empire. It was in March 1894 that it first became prominent in Canton and thereafter it spread to Hongkong, Mexico and Fakhoo and so along the whole of the Southern China Coast. It probably arrived in Bombay in March 1897 but it was not until the end of September that it became noticeable in that part of the native city known as Mandvi, in which the great grain supplies are collected, and where consequently there is an enormous rat population. In October of the same year the presence of the pestilence was officially acknowledged. Every thing which the limited knowledge of the subject at that time suggested was done to check its spread but, in spite of all efforts, the pestilence spread from the infected city throughout the greater portion of the Peninsula, and while its ravages of late years have not been so terrible as at its first appearance, yet the disease still takes its annual toll of human life and it has apparently become one of the endemic diseases of India. According to the official figures Plague since its appearance has been responsible for more than seven and a half million deaths within the limits of the Indian Empire. These figures should perhaps be increased by

about fifteen to twenty per cent. due to defect in the registration of the causes of deaths and also to the fact that the disease often simulates other maladies for which it is likely to be mistaken by an uneducated population.

Plague is an acute infection of the blood by a bacillus which was discovered by Kitasato in Hongkong in 1894. It generally affects its entry by the skin, on which it is deposited by the rat flea. At the site of deposit a small pustule is occasionally found which soon forms a superficial ulcer. In such cases inflammation and distention of the lymphatics may be noticed running from the neighbourhood of the small and painful ulcer to the nearest group of glands. These will be found to be enlarged and exquisitely tender the tenderness being out of all proportion to the size of the glandular enlargement and to the amount of local inflammation. This glandular enlargement is called the Bubo which has given the name to the most common form of the pest—Bubonic Plague.

With the appearance of the Bubo or even a day or so before it there is evidence of a general infection of the system, in the shape of extreme prostration, mental confusion, a furred tongue, and fever which is generally high. The pulse is accelerated, and while at the outset, especially in full blooded muscular adults it is likely to be full and bounding, there is sooner or later generally soon, evidence of early failure of the strength of the cardio-vascular system. The pulse becomes quicker smaller and the heart

sounds feeble. As the case progresses the primary ulcer will enlarge and become of an angry appearance. The Bubo will also enlarge and the tissues around the inflamed lymphatics will be swollen and cedematous. To this variety the term cellulito-rutaneous plague has been applied. The spreading ulcer which is really a local gangrene has been described as the plague carbuncle, these forming on the skin of those affected were often referred to by old historians as a prominent feature in many ancient epidemics.

These cases however are somewhat uncommon. The usual variety met with is the Acute Bubonic Plague. In this the patient is attacked with fever and all the general symptoms of an acute infection and on the first second or sometimes the third day of the illness the characteristic bubo appears. The common site is among the glands of the groin for the reason that these glands receive the lymphatics from the lower limbs and from the lower portion of the trunk up to the level of the navel a larger area than that drained by any other group of glands. Other sites for Bubo formation are the armpits, the glands of the neck, those about the angle of the jaw and below the chin and very rarely the hilum gland on the inner side and just above the elbow and the small glands behind the knee joint. In some cases generally in association with Buboes in the groin, the deep glands of the abdomen can be felt to be enlarged.

These Plague Buboes are of different kinds and it is a matter of some importance in connection with treatment and the outlook as regards recovery to recognize the type of Bubo present in each particular case. The common variety is the softening bubo. The enlargement increases somewhat rapidly and the hard swelling gives place to a soft doughy mass around which is a limited amount of serous effusion into the subcutaneous tissues. The patient lives till the fifth day or thereabouts this bubo will feel like a tightly stuffed pin cushion or may give the experienced examiner the signs that the contents are of a fluid nature. On incision pus and shreds of the disorganized gland will be evacuated and under suitable treatment the cavity though large will heal up within a week or so. When these softening Buboes are allowed to rupture spontaneously a large foul cavity is produced, such are not unfrequently encountered among the poor who have not received adequate attention during the stress of a plague epidemic.

Another variety of bubo obtains when the glands undergo and harden, the inflammation being so acute that the blood supply of the part is obstructed and the whole of the affected area sloughs out leaving a large superficial ulcer of a very unpleasant appearance. These buboes are found where the inflamed glands are bound down beneath tense tissues as in front of the ears and in the region of the groin. To this kind the term indurated bubo has been applied. Another variety the cedematous bubo occurs in the neck and the arm pit and in them the serous effusion into the tissues around the glands, present to a less extent in the common type is the essential feature. The whole arm pit or the side of the neck may be distended by the accumulation of fluid under

the skin. It is an extremely distressing kind of bubo as the pain is great and nearly all the patients die. Also there is a rare kind the

hard late bubo which appears after about a fortnight in cases simulating typhoid fever and lastly there are seen a soft buboes which abort and shrink with the rapid subsidence of the fever—the shrinking bubo. The fever continues from the outset with slight emissions it is generally about 103° to 104° but it may rise to a great height from almost the initial rigor. On the third day the temperature tends to approach the normal, and almost immediately rises again. Should it rise to a point above that of the maximum temperature preceding the remission the outlook is bad, but in cases which are likely to do well it rises to a point which is less than that of the preceding maximum and after about three days gradually falls to normal, with slight daily oscillations depending on the amount of the suppuration in the buboes and their local condition.

It is to be understood that this disease is of such great virulence to human beings on account of the early appearance of the plague bacillus in the blood stream that there are many instances in which death occurs before the bubo has had time to undergo the changes described above or even to form. The more acute cases are also liable to be a typical in their mode of onset. Some are taken with a wild delirium in which they are likely to attack those about them, others suffer from vomiting of blood followed by rapid failure of the heart and death. Pregnant women miscarry and practically all of them die, and lastly there are cases where the general and local symptoms are slight and yet failure of the heart may suddenly ensue within a few hours of the onset. These so called fulminant cases are generally met with at the commencement of every epidemic in some of the descriptions of medieval epidemics they seem to have been in the majority and it is on account of these that plague epidemics appear so terrible to the occupants of the plague stricken town. Fortunately however there is a large majority of cases which allow some scope for medical skill. The condition of the patient after the full development of the symptoms is always one which gives rise to great anxiety. The mental condition becomes dulled which while it mitigates considerably the distress of the sufferer is nevertheless an indication of the action of the plague poison on the nerve centres. The eyes are sunken and often acutely congested. There may be cough which is a bad sign as it indicates either a secondary pneumonia or the onset of an acute bronchitis the direct result of the failure of the heart. If the latter progresses the breathing becomes more rapid, the pulse weak and almost uncountable at the wrist, the skin cold and clammy and towards the end covered by profuse perspiration finally the breathing becomes irregular, and after several long drawn gasps the patient breathes his last.

In other cases however improvement starts about the fourth day the temperature gradually falls and the mind clears, the bubo suppurates in due course and heals up and the patient passes into a slow convalescence but which is sometimes retarded by the formation of chronic

abscesses, boils, attacks of heart failure or of paralysis or ulcers of the eyeball with infection of the whole globe and consequent loss of sight. Some recover with permanent mental enfeeblement or persistent tremors of the limbs with difficulty in speaking with diarrhoea.

Septicæmic Plague

This term is applied to certain forms of acute plague where buboes do not form or where there is uniform but slight enlargement of glands in various parts of the body with symptoms of a general blood infection. The term is misleading inasmuch as most cases of acute bubonic plague are really septicæmic from the outset. These cases are either acute, ending fatally about the third day or sooner or are sub-acute, with symptoms simulating typhoid fever ending fatally in about a fortnight. In the acute cases large dusky patches of blood effusions beneath the skin (the so-called plague spots, are sometimes found and there may be hemorrhages from the stomach or bowels.

Pneumonic Plague

In this variety the plague bacillus proliferates in the lung and causes rapid consolidation of large patches of the lung tissue scattered irregularly throughout the organs with a considerable amount of oedema so that the lungs are engorged with blood are large and heavy and the bronchial tubes filled with reddish frothy

fluid which contains the plague bacillus in almost pure culture. The fever is very high and the interference with respiration immediate, and death occurs from the second to the fourth day. A curious fact about pneumonic plague is that one such case is liable to give rise to others of the same type.

Treatment of the Disease

No serum or antitoxin has so far proved of value in diminishing the mortality of the sick. Much can however be done by medical treatment. Absolute rest is required and the patient should not even be allowed to sit up in bed. Drugs which act as heart stimulants are required almost from the outset and frequently these have to be administered by the skin as well as the mouth. The buboes should be fomented till they soften and incised as soon as fluid is formed. For the pneumonic condition the administration of oxygen gas gives relief. This can be obtained in India without much difficulty. Careful nursing is essential and fluid nourishment must be given regularly in an easily assimilable form and complications have to be met as they arise. As regards prophylaxis by means of Haffkine's Plague prophylactic which is manufactured in enormous quantities at the Bacteriological Government Laboratory at Parli it may be said that its use gives a threefold chance of escape from attack and a reduction of case mortality by fifty per cent.

DENGUE FEVER

Dengue fever otherwise known as Dandy fever or Breakbone fever is rather common in India and is generally present in the larger towns but as it appears in manifold forms and various writers describe it differently its identity is not always recognised and therefore, by many medical men is thought to be less common than it really is. On occasions it gives rise to very wide-spread epidemics. In 1902 there was an extensive epidemic on the eastern side of the Indian Peninsula. And quite recently there has been a bad outbreak in Calcutta. It is more common during the rainy season.

The onset is abrupt, with fever slight sore throat producing cough rapidly of the pulse, sometimes a red rash which is so fugitive that it is often overlooked, and intense pain. These pains constitute the patient's chief complaint. They are generally pains in the bones or in the small of the back or in some of the joints either large or small. Sometimes there is no complaint of pain in the limbs but there is intense pain behind the eyes. The fever lasts for three or four days during which in rare cases there may be further symptoms due to the appearance of a pleurisy or even a pericarditis. Sometimes there is intense shooting pain into the little finger. Though the intensity of the symptoms may give a very serious aspect to the case yet a fatal issue is almost unknown. After the four days of intense suffering the fever sub-

sides somewhat abruptly and at about this time a second rash appears most marked over the shoulders and neck and on the backs of the arms or else an universal rash. It is of a dark red colour often very like the rash of scarlet fever or it may be like that of measles. With its appearance the more severe symptoms subside. During convalescence the patient is much depressed and the pulse remains unduly rapid. Sometimes also pain starts again in one of the joints or be is crippled by stiffness of the back or of several of the joints. After a shorter or longer period from two days to ten a second attack of fever and pain comes on which runs the same course but as a rule less severe and prolonged in very rare cases there is a third attack.

There is no drug which will cut short the disease. From its likeness to rheumatism the salicylates are generally used and perhaps relieve the pains. This drug should be combined with an ordinary fever mixture. Large doses of bromide should be given for the headache and the excruciating pains must be treated with morphia.

It is often impossible to distinguish the malady from influenza until the appearance of the rash.

It is believed that the poison is conveyed by the bites of a mosquito and that this poison has characters which are analogous to the virus of Yellow Fever.

CHOLERA.

This is one of the most important diseases of India, having been endemic there for many hundreds of years. It is always present in the country, and sometimes extends over large districts, generally from some crowded centre such as the site of a pilgrimage from which it is dis-

persed over the country-side by the returning bands of pilgrims. The deaths in British India from this disease in 1911 numbered three hundred and fifty four thousand and in the following year four hundred and seven thousand. The disease is of special importance to the numerous

pilgrims both on going to and returning from Mecca.

It is essentially a water borne disease and the exciting cause is the "comma bacillus" discovered by Koch so called from its shape when isolated and stained. The dejecta of a person suffering from the disease when contaminating the soil are liable to get washed by the rains into some water-supply which may become the source of almost unlimited infection. Such contaminated drinking water is rendered innocuous by boiling or filtration through a Pasteur Chamberland filter. The importance of Koch's discovery therefore lay in the recognition of the fact that the poison was essentially water-borne. It can also be conveyed by flies settling on food.

The disease has an incubation period of from two to seven days. After a premonitory diarrhoea with colicky pains lasting for half a day or longer, the nature of the illness is announced by violent purging and vomiting, the former having the peculiar character of rice-water. The poison may be so intense that death takes place before the purging appears, the so-called *cholera sicca*. In the common form collapse is early and marked, the extremities are blue and cold, the skin shrunken, the heart weak, the surface temperature below normal, though the temperature taken in the mouth shows high fever to be present. There is a curious pinched expression of the face with deeply sunk eyes and the patient endeavours to communicate his wishes or fears in a hoarse whisper. He is further distressed by painful cramps in the muscles of the calf and abdomen, and there is suppression of the functions of the kidneys. Death generally takes place in this the algid state. Should the patient survive he passes into the stage of reaction, the unfavourable symptoms disappearing and gradually passing into convalescence. In some of these cases which give hopes of recovery there is a relapse, the conditions of the algid state re-appearing and death taking place. It has recently been recognised as a cause of the dissemination of the disease that patients who have recovered will continue to discharge the bacillus for many weeks.

The prevention of cholera lies in attention to water supplies and in boiling and filtering as a matter of routine in Indian life. All the discharges from the sick should be treated with disinfectants and soiled clothing and linen destroyed. People who have to tour in cholera stricken districts or who go on shooting excursions or who find themselves in the midst of a cholera outbreak should undergo inoculation with Hissliffe's preventive vaccine. Two inoculations are required, the second being more intense in its effects. The temporary symptoms which may arise after the inoculation are sometimes severe, being always more marked than after inoculation against typhoid, but the protection afforded more than makes up for the temporary inconvenience endured.

During the cholera season the milder cases of diarrhoea should be brought for treatment to a physician, as such persons are more liable than others to contract the disease.

Treatment mainly resolves itself into meeting the extreme collapse with stimulants and warmth. There is great temptation to administer opium but in some cases this is not unattended with danger and in others there is no capacity left in the patient for the absorption of drugs administered by the mouth. The mortality has however been reduced by the injection of saline fluid into the skin or directly into the veins, and also by the introduction of saline fluid of particular strength into the abdominal cavity.

Kala-Azar

This is a slowly progressive disease associated with great enlargement of the spleen and some enlargement of the liver, extreme emaciation and a fever of a peculiar type characterised by remissions for short periods, and due to infection by a parasite of remarkable characters which have only recently been worked out. It is attended with a very high mortality about 98 per cent. and has up to the present resisted all methods of treatment although some patients appear to improve for a time only in the majority of cases to relapse later.

It is endemic in Assam from which it has invaded Bengal, and is now often seen in Calcutta. It is also fairly often met with in Madras though it is said that the cases are imported ones. It is very rarely seen in Bombay, and then only in immigrants from infected localities though there appears to be a mild endemic centre in Jabalpur in the Central Provinces, so it is likely to be more frequently met with on the western side of India. It has caused great mortality among the coolies on the tea plantations of Assam, especially among the children, but under the recent measures of prophylaxis which have been put into force since knowledge has been acquired about its real nature and method of spread the ravages of the disease are likely to be limited. It is very rare among Europeans and then almost entirely among those who have been long in India or who have been born and bred in the country.

Infection seems generally to start in the cold weather. There is fever with rigors, and progressive wasting and loss of energy. The temperature chart is a curious one, the fever showing two remissions during the twenty-four hours. Diarrhoea is common, especially during the later stages of the disease. The spleen enlarges early and is generally of enormous size producing bulging of the abdomen. A remarkable feature is the tendency to the formation of ulcers which in many cases especially in children takes the form of a gangrenous ulceration of the mouth and cheek. Death usually occurs from some intercurrent inflammatory condition often pneumonia.

The parasite is found in the spleen and liver during life and can be obtained by puncture of these organs. As thus obtained it is a minute round body of special character. In this state it is known as the *Leshman Donovan* body from its discoverers. This small body has been cultivated by Leonard Rogers in suitable media and under low temperatures, and found to develop into a flagellated, that is tail possessing organism. How this peculiar

organism develops outside the human host is not yet completely known. It is certainly a house-infection which accounts for the manner in which whole families have been swept off, one member after another. Its progress has been stayed by moving families from their infected houses and burning down their former quarters. This, and other facts connected with its spread, have suggested that the agent for conveying the poison from man to man is the common bed-bug and

Faiton has succeeded in developing the flagellate stage in this creature when fed on the blood of the sick.

There is a severe form of ulceration of the skin known as "Delhi Boli" from which organisms very similar to the Lelshman Donovan body were obtained many years ago. These bodies have also been cultivated outside the human host and found to develop into a flagellated organism. The two parasites though closely allied, are nevertheless distinct.

DRUG CULTURE

Two monographs on the cultivation of drugs in India, by Mr David Hooper of the Indian Museum, Calcutta, and by Mr Puran Singh of the Indian Forest Department Dehra Dun have lately been published. Mr Hooper in his paper states that one-half of the drugs in the British Pharmacopoeia are indigenous to the East Indies and nearly the whole of the rest could be cultivated or exploited. The following are given as those that could be grown in quantity and as worthy of the attention of cultivators and capitalists:—

Belladonna, most of which is still imported grows well in the Western Himalayas from Sialkot to Kashmir. The Indian grown plant contains 8% to 0.45 per cent of alkaloid.

Digitalis is quite acclimatised on the Nilgiris growing there without any attention. The Madras Store Department obtains all its requirements from Ootacamund, and the leaf has been found equally active to that grown in England.

Hembane is a native of the temperate Himalayas from 8,000 to 11,000 ft. It was introduced into the Botanic Gardens Saharanpur in 1840, and it has been steadily cultivated there up to the present time, and the products supplied to medical depots satisfy the annual demand.

Tropaeolum has been raised with a small measure of success in the hilly parts of India, and it only requires care and attention to raise it in sufficient amount to make it commercially remunerative.

Jalap-root grows as easily as potatoes in the Nilgiris, and there is no reason why the annual requirements (about 4,000 lbs.) for the Medical Stores of Bengal, Bombay and Madras should not be obtained from Ootacamund.

Mr Puran Singh discussed the subject in a number of the 'Indian Forester' in 1914. He states that most of the drugs in the British Pharmacopoeia grow wild in India, and that there is already a large export trade for some of them. He adds, however that materials collected at

random cannot be expected to fetch full prices as they seldom come up to standard quality and he adds: "The few drugs that are not indigenous to India could easily be made to grow in some part or other of this vast land. The great advantage accruing from the systematic cultivation of drugs is that a regular supply of genuine drugs of standard quality is assured. The variation in the quality of wild grown drugs is sometimes a very serious drawback to finding a profitable market for them. The quality of *Podophyllum Emodi* growing wild in India is an illustration in point. This plant was discovered by Sir George Watt in the year 1888 and now even after twenty four years in which it has been shown to be identical with the American drug that is being employed for pharmaceutical purposes, it still remains unrecognized by the British Pharmacopoeia, which, as explained by the Chemist and Druggist some time ago is solely due to the uncertainty which still exists as to its physiological activity."

Mr Singh also points out that the Indian consumers of medicine depend mostly on herbs growing wild in the forests, the more important of these probably numbering at least 1,000. This inland trade is very large, the possibilities in the Punjab alone being put at Rs. 50,00,000. He mentions saffron, liquorice, and salep as products exotic to India, whose cultivation in this country looks full of promise. Mr Singh suggests that a complete survey be made of the extent of the inland trade in medicinal products found growing wild in Indian forests in order to arrive at the figures of annual consumption and that the forest areas where the most important drugs grow should be preserved. Inquiries should be instituted as to the best methods of cultivation and if need be, the means of extending the artificial propagation. It is to provide data to induce the private capitalist to embark on such enterprises that Mr Singh advocates the formation of some body to go into the matter. He suggests that India is well worthy of attention by those in this country who are interested in extending the culture

of drugs in the British Empire. The Forest Department has already begun the cultivation of Indian podophyllum root in the Punjab, United Provinces and the North Western Frontier and several mannds of dried rhizome are sold annually for local consumption. Mr Hooper also shows that a start has been made in regard to the cultivation of belladonna, henbane and digitalis. One of the principal difficulties to be overcome is to ensure a ready market, and there is also always the danger of over production to be considered.

Essential Oils.

SANDALWOOD OIL is by far the most, important perfumery product of India. The sandalwood tree is a root parasite, obtaining its nourishment from the roots of other trees by means of suckers. It grows best in loose volcanic soil mixed with rocks, and preferably ferruginous in character. Although in rich soil it grows more luxuriantly, less scented wood is formed, and at an altitude of 700 feet it is said to be totally devoid of scent. The best yield of oil is obtained from trees growing at an altitude of 1,500 to 4,000 feet, but the tree requires plenty of room so as to enable it to select vigorous hosts to feed it.

PAJMAROSA OIL also known as Indian geranium or "Turkish geranium oil" is another of the principal perfume products of India. It is derived from the grass *Cymbopogon Martii*, which is widely distributed in India where it is known as Motya. Gingergrass is an oil of inferior quality possibly derived from older grasses or from a different variety of the same species. Both oils contain geraniol the proportion in palmarosa being from 75 to 95 per cent and in gingergrass generally less than 70 per cent. These oils are used in soap, perfumery and for scenting hair oils and pomades.

LEMONGRASS OIL is derived from *Cymbopogon citratus* and *Cymbopogon flexuosus*. The former is a native of Bengal, and is largely cultivated all over India, but the oil distilled on the Malabar Coast and Coochin is derived principally from *C. flexuosus*.

WINTER OR CUS-CUS is a perennial grass *Yulista zizanioides* found along the Coromandel Coast and in Mysore, Bengal and Burma, in moist heavy soil along the banks of rivers. The leaves are practically odourless and only used for thatching and weaving purposes. The roots are used in perfumery and in the manufacture of mats and baskets.

THE MALABAR CARDAMOM *Alpinia cardamomum* is the source of the seeds official in the British and other Pharmacopoeias. Cardamom oil of commerce is, however, not distilled from this variety on account of the high price but is obtained almost exclusively from the long cardamom found growing wild and cultivated in Ceylon. The oil is used medicinally as a carminative and is also employed by perfumers in France and America.

COSMUS ROOT (the root of *Saussurea lappa*) is a native of Kashmir where about 2,000,000 lbs. are collected annually. It is exported in large quantities to China where it is used for incense. It is also used to protect shawls and

clothes from the attacks of insects. Its odour resembles that of orris root.

BLUMEA BAIJAKTIFERA is the source of the Nagal camphor used in China for ritualistic and medicinal purposes. This shrubby composite is found in the Himalayas and is indigenous to India. It is widely distributed in India and is used by the natives against flies and other insects.

EUCALYPTUS plantations are situated chiefly in the neighbourhood of Ootacamund, Coonoor, and Wellington at elevations varying from 5,500 to 8,400 feet the best being at from 7,200 to 8,000 feet. The climate of this region is fairly cool, equable and moist, with a well distributed rainfall of about 56 to 80 inches although frosts occur, the winters are mild on the whole and snow is unknown. The soil is a red clay overlying gneissous rock, is rich and deep in some parts shallow and poorer in others. A large factory is being built for the distillation of eucalyptus oil at Ootacamund. It is believed there is a considerable future for the undertaking provided a sufficient supply of the leaves is available.

Manufacture of Quinine

Government Cinchona plantations were started in India in 1862 from seed introduced by Sir Clements Markham from South America, of which the plant is a native. There are two main centres, Darjeeling and the Nilgiri Hills. In both localities a portion of the area is owned by tea or coffee planters and the bark they produce is either sold to the Government or exported. Several species of cinchona are cultivated in India, namely *Cinchona succubra* (red bark), *C. calycina* and *ledgeriana* (yellow bark) and *C. officinalis* (crown bark). The commonest species in Darjeeling is *C. ledgeriana* and in Southern India *C. officinalis*. A hybrid form is also largely grown and yields a good bark. At the Government factories both cinchona tannin and quinine are made. Thanks to these factories practically no quinine is nowadays imported for Government purposes.

THE REPORT OF THE GOVERNMENT CINCHONA plantations and factory in Bengal published in July 1916 shows a remarkable record of progress achieved since the Department was re-organised ten years ago. In 1905 the maximum annual yield from bark on the plantation fell short by 6,000 lbs. of the annual demand which then stood at 15,000 lbs. To-day the possible and on occasion the actual annual output of the factory is 50,000 lbs. of quinine. On the whole plantation the net area under cinchona has increased from 1,737 acres to 2,552 acres. The annual possible harvest has increased from about 300,000 lbs. of 2.5 per cent bark to 1,000,000 lbs. of 4.5 per cent bark, and this quantity is assured for many years to come. The extraction efficiency of the factory plant has been raised from not more than 75 per cent to 95 per cent of the possible, while the manufactured cost of quinine has been reduced from Rs 9 to a little over Rs 5 per lb. One of the most far-reaching measures of modern times for the benefit of the health of the people of India has been Sir George King's

specimen of having quinine locally produced from cinchona, made up in 7-grain packets and sold (since 1898-7) for a quarter anna (one farthing) at every post office in India. This scheme has proved a commercial success, and has been of immense benefit to the inhabitants of fever-stricken tracts. In the year 1912-13, 10,694 lbs of quinine were sold at the post offices.

The Quinine Ring.—A report issued in April 1914 by the Superintendent of the Royal Botanic Garden Calcutta, states—“Towards the middle of 1912 negotiations were commenced between the Java planters who produce about 80 per cent of the world's bark and the European bark importers and quinine manufacturers with a view to an agreement as to the minimum unit price to be given for bark. The price of quinine in the bark had been going down steadily for a number of years, and had reached a point that threatened the conversion of much cinchona land in Java into coffee, tea or sugar producing areas. At present the negotiations between these bodies still drag on, but it seems probable that an agreement will be arrived at whereby among other conditions, the minimum rate for bark will be raised to 5 Dutch cents per unit.” The quinine ring is now an established fact. The effect of this agreement may be far reaching. After less than a year's working the price for bark rose from the minimum 5 cents imposed to 5 20 Dutch cents per unit

and an article in *The Chemist and Druggist* for 6th November 1915 gives the following details of the rise in price—

“Some idea of the extent to which the price of quinine has risen is obtained by comparing the figures ruling three years ago with those of to day. From January 1909 to April 1912 the German makers' prices remained stationary at 7½d per oz and in 1911 German brands in second hands sold as low as 6d while Java quinine was down to 5½d per oz these being the lowest on record. The depreciation was due to three causes viz unchecked bark production, high average quinine-content of Java bark and the failure of all efforts to bring about an understanding among the planters. In July 1913 an agreement was arrived at and a general improvement was effected from that time until August 1914 when the price of quinine sulphate stood at 1s 1d and second hands at about 1s 2½d. During the first twelve months of the war there was no speculation in the article but now a few daring operators have been buying and selling some of them have made thousands of pounds per day and they are assisted by a number of smaller operators. The situation, therefore, has never been more favourable from a “bull” point and speculators have successfully availed themselves of it by driving up the price from 1s 4½d to 6s. The present price is so inflated that reaction is bound to follow and at the time of writing the price has fallen to 4s due to the Government having prohibited exportation.

Calcutta Improvement Trust

The Calcutta Improvement Trust was instituted by Government in January 1912, the preamble of the Act by which it is founded running as follows — Whereas it is expedient to make provision for the improvement and expansion of Calcutta by opening up congested areas laying out or altering streets providing open spaces for purposes of ventilation or recreation, demolishing or constructing buildings, acquiring land for the said purposes and for the re-housing of persons of the poorer and working classes displaced by the execution of improvement schemes

The origin of the Calcutta Improvement Trust must as in the case of the corresponding Bombay body upon which the Calcutta Trust was to a large extent modelled, be looked for in the medical enquiry which was instituted into the sanitary condition of the town in 1896 owing to the outbreak of plague. In consequence of the facts then brought to light, a Building Commission was appointed in April 1897 to consider what amendments were required in the law relating to buildings and streets in Calcutta. That Commission recommended certain alterations in the law, and further suggested that a scheme should be prepared for laying out those portions of the town which were sparsely covered with masonry. While unable to go into details, they recommended that in quarters newly laid out the roads and open spaces should occupy at least as much ground as the building areas. As regards existing evils they thought that it was impossible to demolish any considerable portions of the City. All that could be done was to open out a number of wide streets and some open spaces. The Government of Bengal when it proposed to give effect to the recommendations of the Commission adopted as the work to be done a scheme for constructing and improving 15½ miles of roads which had been drawn up by the Commission. This scheme formed the basis of discussion till 1904 when a Conference was convened by Sir Andrew Fraser then Lieutenant-Governor of Bengal. It was estimated that the Trust might in the ensuing 30 years have to provide for the housing of 225 000 persons who would occupy 2 000 acres. The population of Calcutta proper which includes all the most crowded areas was 649 995 in 1891 and increased to 801 251 or by 25 per cent by 1901. The corresponding figure according to the 1911 Census was 896 067.

The Conference of 1904 recognised that in view of the peculiar situation of Calcutta, which is shut in on one side by the Hooghly and on the other by the Salt Lake, its extension in a regular zone is impossible. The Conference after carefully considering the question came to the conclusion that areas or promontories should be thrown out in five directions on the north, north-east, east, south and south-east, and south-west. In these promontories it was easy to foresee that expansion would take place along the lines indicated by certain roads. It is for this reason that the Government of Bengal made the proposal that the Trust should have power to project roads to the outskirts of Calcutta.

It was seen that strips of land lying along or in the neighbourhood of these roads should be acquired by or for the Trust and would be dealt with by them as model areas. In the remaining part of the extension, according to the Government's plan the Trust would have no proprietary rights over the land, but they would administer the building regulations and by this means would secure that all houses erected by private owners were constructed on a standard plan and in conformity with sanitary requirements.

Legislation.

The recommendations of the 1904 Conference eventually took legislative form in a Bill introduced in the Bengal Legislative Council in August 1910. This measure was built up on the recognition by the Government that the 15 miles road scheme only touched the fringe of the question of overcrowding and sanitation. The Bill therefore provided for a scheme of greatly enlarged scope. The amount of money required was roughly estimated at Rs. 8 22,00 000. It was recognised that a great deal more could be spent with advantage, and the figure was not put forward as representing the actual cost of any definite scheme, but as a rough estimate of what would be required for any scheme of wide and permanent utility. The total sum was divided into Rs 800 lakhs for new roads, Rs 172 lakhs for open spaces and Rs 150 lakhs for housing and expansion. Of these sums Rs 330 lakhs were to be recovered by recoupment, 60 lakhs were granted from Imperial revenues, and the remainder was left to be raised by loans. The sanction of the Secretary of State was obtained for the proposals generally on the understanding that the scheme of taxation would be for 60 years. The Legislative enactment while based on these calculations does not actually refer to any limit of expenditure. But the Act provides a special system of taxation for the service of the loans, amounting to Rs 436 lakhs involved in the scheme. For this service an annual revenue of 19 65 lakhs was required and to this have to be added 1 25 lakhs for working expenses and contingencies bringing the total up to 20 90 lakhs. To provide this revenue the Act provides for the levy of special taxes as follows —

- A two per cent stamp duty on the value of all immovable property transferred by sale gift or reversion or mortgage.
- A terminal tax of one anna on every passenger by rail or steamer arriving in the city of Calcutta, this is not to be levied on passengers from within a radius of 30 miles of Calcutta.
- A customs and excise duty not exceeding two annas per half of 400 lbs on raw jute.
- A two per cent consolidated Corporation rate and
- An annual Government grant of a lakh and a half.

The Act provides for the appointment of a whole time chairman of the trustees and the membership of the Trust was fixed at eleven.

part of the members being nominated by Government and others elected by local bodies whose interests are most nearly concerned.

The following are the present Board of Trustees—The Hon ble Mr C H Bompas, I.C.S. Chairman, The Hon ble Mr C F Payne, I.C.S. Chairman of the Calcutta Municipal Corporation (*ex-officio*) The Hon ble Raja Reshmi Chandra Law, D.L.S. elected by the Corporation The Hon ble Rai Radha Charan Pal Bahadur elected by the Ward Commissioners Dr Charles Banks, elected by the Commissionaries appointed under Sec 8 (2) of the Calcutta Municipal Act, 1899 Mr W K Doda, elected by the Bengal Chamber of Commerce The Hon ble Rai Sitnath Rai Bahadur elected by the Bengal National Chamber of Commerce Sir B N Mukherjee, K.O.L.N., Mr F H Stewart, I.C.S., the Hon. Mr H. J. Hilary and Mr R. Anderson, appointed by the Bengal Government.

The Board and their Work.

It was impossible to settle in advance the exact projects to be undertaken by the Trust. All details of these were, therefore left to be worked out by the Trust after its constitution. Government exercising control by having all the individual schemes sent to them for approval before execution. The Trust did not enter on a virgin field. The Municipal Corporation had previously dealt in some measure with the problems they were appointed to solve and the Trust started work with the initial benefit of this previous labour. Thus the Corporation had aligned many roads and this work was useful to the Trust, though in some cases modifications were necessary.

The work upon which the Trust are now definitely embarked may be divided into three classes as follows—

Many parts of Calcutta are over crowded with buildings and ill provided with roads. These areas are to be re-arranged both on the ground of sanitation and for convenience of traffic.

Population will continue to throng into the overcrowded parts unless it can live on the outskirts and at the same time have speedy access to the business centres of the town. Quick traffic can only take place along broad roads. These are all most wanting in Calcutta. The construction of broad roads will at the same time ventilate the overcrowded parts of the town and it has been recognised from the outset that the construction of broad roads running both north and south and east and west will thus secure a double object.

There is the question of providing for the population displaced by improvements and still more important of providing for the natural growth of population by laying-out roads and building sites on sparsely populated areas on the outskirts of the town. When persons of the working class are displaced or likely to be displaced the Trust can build dwellings for them if private enterprise does not undertake the work.

Engineer's Survey

The Trust perceived at once that the problem of providing improved traffic facilities for Calcutta and its suburbs must be dealt with as a single problem and by a single mind. The first duty set by the Trust to their chief engineer was, therefore to prepare a scheme of main roads of primary importance. The chief engineer Mr R. P. Richards, M.I.C.E., &c., devoted his whole attention to this task and his report was issued early in 1914. Mr Richards' report, which was accompanied by maps and numerous photographic illustrations, made a volume of 400 closely printed foolscap pages. He found Calcutta a city which is in a very much more than ordinary bad way, and early discovered the serious fact that the Calcutta Improvement Act of 1911 was almost useless for the great task set to the Trust. The Trust was not constituted under a Town Planning Act but only under a local Housing Act so that "Calcutta and her suburbs cannot possibly be jointly planned or controlled, or be moderately improved, under the existing Improvement Act. Mr Richards' report deals with the general conditions and needs of the city and the general policy of reform, with the general legislative and financial aspects and with the main programme of work. He discusses the Calcutta of to-day showing the chief faults as to which improvements are required. A comparison is made between Calcutta and other cities, by way of illustrating Calcutta's needs and in this manner finance, roads and streets per square mile, road and street widths, percentage of open spaces, tramway mileage, per head of population, the status of the city as a port, and so on, are fully dealt with. An important chapter deals with the Calcutta slums and makes recommendations as to what should be done in regards to them. Another chapter discusses the general problem of city improvement and another is devoted to suburban planning and developments.

Improvement Schemes.

The Engineer submitted early last year an interesting report on the widening of Howrah Bridge. Meanwhile, the Board undertook certain improvement schemes which would not be interfered with by any larger schemes adopted later. The Board also embarked on a rehousing scheme with a view to provide accommodation for persons likely to be displaced by the improved schemes under preparation. The buildings designed resemble those erected by the Bombay Improvement Trust. The scheme was sanctioned by Government in August 1912, but its execution has proved more expensive than was anticipated mainly owing to the rise in the price of building materials. The following paragraph from the Calcutta Improvement Trust's first annual report shows the standard according to which they regard their rehousing plans—

The housing problem in Calcutta is of supreme importance. The figures of the last census show that much of the improvement in the health of Calcutta is only apparent, the sanitary measures of the Corporation result in the removal of bastees and the popu-

lation which occupied the bustees does not find healthier accommodation in the same locality but moves on to even more insanitary bustees in the suburban wards or in the adjacent suburban municipalities. The Board do not anticipate nor do they desire that the chawl should become the usual dwelling for the poor of Calcutta, but it may be suitable to some classes of its heterogeneous population and especially to those who come here for work, leaving their families behind. It is very difficult to see what other class of building can be erected by the capitalist where land costs more than Rs 600 a cottah. On really cheap land it is possible that good results could be obtained by arranging for the construction of sanitary bustees. The Board merely laying-out and draining the site and controlling the class of hut erected. The Board undertook the erection of three blocks of buildings as an experiment. The cost of the land worked out at Rs 882 a cottah. It is recognized in England that the working classes cannot profitably be housed on land costing more than £300 an acre or Rs 75 a cottah. There will, therefore, be a loss on the Calcutta experiment, as was anticipated by the Board from the outset.

It appears, therefore, say the Trustees in their 1914 report "that the buildings would show a fair return of capital if the rooms in the two upper storeys were let out at Rs. 6 a month, those on the ground floor at Rs. 4 a month and the shops at Rs. 10.

The Board believed the buildings to be much cheaper than anything of the kind hitherto erected in Calcutta and applications received show that there would apparently be no difficulty in filling a building with tenants of the Bengali middle class, if the whole building or the two upper storeys of each block were exclusively reserved for their use. "The Board however consider that it is most important to ascertain what rent can be paid and what accommodation is required by the artisan and labouring classes. They have, therefore, decided to let the rooms at lower rates to artisans and labourers and if the buildings once become popular it will doubtless be possible to raise the rents at a later period."

Seventeen improvement schemes were published by the Board up to the end of the last official year including eleven schemes published last year.

BOMBAY IMPROVEMENT TRUST

Bombay is an island twelve miles long but very narrow and containing only 22 square miles altogether but in the city occupying little more than half the island there lives a population enumerated at 972,802 and actually totalling over a million. Bombay is, in point of population the second city of the British Empire. Seventy-six per cent of its million people live in one-roomed tenements. Imagine the terrible conditions of overcrowding and lack of sanitation which these facts imply and you have the reason why the severe onset of plague seventeen years ago led to the formation of the Improvement Trust, for the special purpose of ameliorating the sanitary condition of the city. Plague was imported into India from the Far East and was first discovered in Bombay in 1896. There was a great panic among the population. Every house had its victims; most persons attacked died. There was a general flight of the population to the country districts. It is estimated that nearly half a million fled. Grass grew in the principal streets. These circumstances directed the attention of the authorities, as nothing else could have done to the problem of bringing the development and housing arrangements of the city into line with modern requirements. It was at once recognised that the task was too great for the Municipality and a special body, termed the Trustees for the Improvement of the City of Bombay was appointed. It consists of 14 members, of whom four are elected by the Municipality and one each by the Chamber of Commerce, the Millowners' Association and the Port Trust, and the balance nominated by Government, or sit *ex officio* as officers of Government. The Board is presided over by a whole time chairman who is either a covenanted civilian or an officer of the Public Works Department, and he is also head of the executive. The present chair-

man and members of the Trust are as follow—

Chairman—

The Hon Mr J P Orr C.S.I., I.C.S.

Ex-officio Trustees—

Brig. General C W Knight D.S.O., A.D.C.
General Officer Commanding Bombay District

Mr A H A Simcox I.C.S. J.P., Collector of Bombay

Mr P R Cadell, Q.B. I.C.S. J.P., Municipal Commissioner

Elected by the Corporation—

Sir Bhalechandra Krishna Bhatawadekar
Kt. I.C.S. J.P.

Mr Dinsha Edulji Wacha, J.P.

The Hon.ble Sir Ibrahim Bahimtoola,
Kt. I.C.S. J.P.

Mr Vowroji Jehangir Gamadia, J.P.

Elected by the Chamber of Commerce—

Major H A L Hopper R.E., J.P.

Elected by the Port Trustees—

The Hon.ble Mr F L Spratt, J.P.

Elected by the Millowners' Association—

Sir Sassoon David, Bart., J.P.

Nominated by Government—

Sir Vitthaladas D Thackersey Kt. J.P.

Mr A M Tod J.P.

Mr A H Whyte J.P. Executive Engineer Presidency

The specific duties of the Trust are to construct new streets, open out crowded localities, reclaim lands from the sea to provide room for expansion and construct sanitary dwellings for the poor.

The Sanitary Problem.

Bombay city grew on haphazard lines houses being added as population poured in with the growth of trade and without any regard to town planning or the sanitary requirements of a great town. The price of land was always comparatively high, owing to the small area of the island, and while the builder had only one object in view namely to collect as many rent paying tenants as possible on the smallest possible piece of land, there were no proper restraints to compel him to observe the most ordinary rules of hygiene. The result was the erection of great houses sometimes five and six storeys high, containing mere nests of rooms. There was no adequate restriction as to the height of these shacks, or the provision of surrounding open space, so that the elementary rules as to the admission of light and air went unobserved and the house builder invariably erected a building extending right up to the margins of his site. Consequently great houses accommodated from a few hundred to as many as four thousand tenants were built with no more than two or three feet between any two of them and with hundreds of rooms having no opening at all into the outer air.

The Trust has practically reconstructed large areas on modern sanitary lines but the old municipal by-laws having unfortunately remained quite inadequate for the requirements of the city the Trust have spent millions sterling of public money in sweeping away abuses while unscrupulous landlords, still unchecked added in the same old manner to the insanitary conditions of the place. Thus the Trust acquire and destroy insanitary houses on a certain area and lease the sites and permit new houses to be built on them subject to the reservation of a certain breadth of open ground round the edges of the site to provide for the necessary angle of light and air for the lower rooms of the new building. But bordering on this area there will be old houses that were not acquired as part of the improvement scheme and the municipal by-laws have allowed the owners of these to increase their height by as many storeys as they like, without regard to the fact that they were thus undoing the very work of providing for the admission of light and air upon which the Trust had just poured out money. The private landlords have taken the fullest advantage of the loophole. The amendment of the Municipal by-laws so as to curtail such abuses has been under discussion by the Municipal Corporation for many years and improved by-laws have been prepared. They are still under consideration by the Municipal Committee.

Finance.

The work with which the Trust was charged was bound to prove unremunerative, with the exception of reclamations from the sea, and at the outset, therefore, certain Government and Municipal lands were vested in the Trust the usufruct of which it enjoys and the Trust as the outset received a contribution from municipal revenues not exceeding 2 per cent on the saleable value of the property assessed for taxation. In practice, the works are financed out of 4 per cent loans, which are

guaranteed by the Municipality and the Government, and the revenue of the Trust is used to meet interest and sinking fund charges. The Trust, proceeding on these lines, found itself in 1910 at the end of its resources. When the Trust was constituted it was estimated that the usufruct on the public land vested in it would represent a contribution of Rs 98 00 000 (£240 000) from the general taxpayer. But in practice this was reduced to less than Rs 43 00 000 (£288 666). The Trust found itself with unpledged resources estimated at only Rs 18 00 000 (£106,666). The Government of India came to its assistance with a cash grant of half a crore of rupees (£335 000) given out of a budget surplus. Special legislation was carried through the Bombay Legislative Council in 1913 to increase the advantage of the Trust from Provincial and Municipal appropriations, and legislative measures are now in progress to enable the Trust to raise money by special local taxation in Bombay. The cautious estimate of Rs 18 00 000 also proved to have been below the mark. In the years following 1910 when the estimate was made, there was an improvement in the Trust's revenue, so that in 1913 after the amendment of the financial clauses of the Act and the grant of 50 lakhs by the Government of India, and in spite of important additions to the Trust's sanctioned programme the financial forecast showed that the margin for expansion had increased to Rs 95 lakhs. Inasmuch as the whole of this sum was required for completion of the Eastern Avenue, it was still necessary that the Trust should be provided with further funds for direct expenditure on improvement schemes. To this end a Bill was introduced into the Bombay Legislative Council on 18th December 1913, providing for the levy of a surtax in stamp duty on conveyances of property in Bombay and for the payment of the net proceeds to the Trust. The Municipal Corporation however protested against the raising of the necessary funds at the expense of the property owners of Bombay and suggested, as they and the Trust had already suggested in 1911 that an export duty on bales of cotton exported from Bombay should be levied instead. Government announced at the March, 1914 meeting of the Legislative Council that the Bill would be held over pending consideration of this suggestion. The Trust last November carried a recommendation of their Improvements Committee to ask their solicitors to draft an Improvement to the Improvement Trust Act which would give the Board powers similar to those provided for in the English Act for the housing of the working classes to acquire parts of houses to remove obstructing houses, and to levy betterment contributions from houseowners who benefited by such improvements, the aim of this amendment being to enable the Trust to deal with areas represented for improvement by the Municipal Corporation without the great expense of total demolition procedure.

The following are some details of the Bill to amend the City of Bombay Improvement Act which, as just mentioned, was passed by the Provincial Legislature. The main object of the Bill was to simplify the financial arrangements between the Government, the Municipality and the Trust and make them more

favourable to both the local bodies. Under the old Act, as already mentioned, the annual Municipal contribution to the Trust was an indefinite sum limited by a maximum of 2 per cent on the Municipal assessments of the year. Under the Amended Act the Municipal contribution is a definite share of the year's general tax receipts, approximating to 2 per cent on assessments and subject to no maximum and the Trust keep their profits for their own use. Under the original Act the Trust had from 1809 onwards to pay to Government and the Municipality 3 per cent per annum as interest on the schedule value of the Government and Municipal lands vested in them while Government and the Municipality were at liberty to resume any unleased vested lands for public purposes without paying compensation except in respect of capital spent by the Trust in improving them. Under the amended Act the Trust have no interest to pay and Government and the Municipality must, on resuming vested lands pay the Trust their full market value. There are other modifications of the old arrangements, similarly making for the financial benefit of the Trust. The new Act makes the Municipality the trustees of the Trust's assets and liabilities. Apart from finance the new Act contains important new sections under which the Trust are empowered to co-operate with employers of labour for the housing of the working classes by constructing chawls for their employees and leasing them to the employers at a rent calculated so as to yield to the Trust in the course of the 13 years of the lease the capital sum spent in the scheme plus 4 per cent interest, the chawls then becoming the property of the employers. The Trust are now co-operating with several millowners in schemes under these sections.

Plan of operations.

The work of the Trust so far as it has gone on is planned can be divided into two parts (the first concerned the immediate alleviation of the worst burdens of insanitation and the second consists of opening up new residential areas). The Trust began by attacking the most insanitary areas. Two broad roads running due east and west, were cut through the worst parts of the city, sweeping away a mass of insanitary property and admitting the healthy western breezes to the most crowded parts of it. These thoroughfares are known as Sandhurst road and Princess street. They are as yet hardly completed but the greater parts of them are already settled under the new conditions with sites on both sides of them disposed of on long leases and many new buildings built and occupied. Meanwhile large areas of good building land lying idle for want of development works have been developed and brought on the market, sold at remunerative rates and largely built upon. An instance of this development is the Chaupati estate the land overhung by Malabar Hill, between it and the native city. This was cut up with fine new roads and is now nearly covered with modern suburban dwellings. Two of the most insanitary quarters in the midst of the city have been levelled to the ground and rebuilt in accordance with hygienic principles. Sanitary chawls have

been built for about 20,000 persons. So much for the first phase of the Trust's labours.

The second phase, arising gradually out of the first and advancing along with its later stages, consists of the development of a new suburban area in the north of the island beyond the present city and the construction of great arterial thoroughfares traversing the island from north to south. The latter undertakings were originally known as the eastern and western avenue schemes, but the cost of land is rising so rapidly throughout the city and the expense of new works is accordingly growing so heavy that the western avenue has had practically to be abandoned and modified improvements of existing highways from south to north on the western side of the city substituted for it. The eastern avenue will run from the back of Crawford Market, the northernmost limit of the modern commercial city directly north to Lalbhai, near the entrance road to old Government House, Parel, and have a width varying from 100 to 120 feet. It is divided into three sections. The first starting from Crawford Market and reaching to Pydhonie is already in the hands of the engineers for execution (the second for which Parel road requires widening) awaiting the passage of the new legislation enabling the Trust to raise additional funds while strong opposition has been made to it owing to the high cost of widening Parel road the estimated outlay being Rs. 90 lakhs. The matter was hotly debated during several meetings of the Trust in the autumn of 1916 and a majority finally voted in favour of the prosecution of the scheme while the Hon. Sir Ebrahim Rahimulla representing the minority declared that he would still endeavour in the Legislative Council to overturn the Board's decision. The third and northernmost portion is under construction.

Beyond the northern end of the Eastern Avenue the north-east portion of the island extending some three miles, consisted until recently of swampy rice lands interspersed with bits of jungle and small hills and a few building areas. The Trust have acquired the whole area. A broad thoroughfare has been laid through the centre of it with other roads connecting the outlying parts with the central road and with the railway stations. Some of the hills have been levelled and the material from them used to fill the low lying parts of the estate. Development some time ago reached the stage of readiness for building in the half of the scheme nearest the city and the Trust are now devoting their attention to facilitating private enterprise in this direction. Some building has already been commenced. The suburbs will probably become largely residential for people whose daily pursuits take them to the southern city but its chief use will be for those whose avocations employ them in the large new port extension which the Port Trust are carrying out at the north of the present port and where the new cotton green and grain yards will be situated. The Port Trust have reclaimed 500 acres of land from the north of the harbour, at a cost of £1,583,323, and the whole of the export trade of the port will be concentrated in this new area and in that adjoining it at Mazagon and Sewri.

Statistics

The following are some statistical details of the progress of the Trust's operations. By the end of 1914-15 the Board had raised Rs 543 lakhs (face value net receipts being Rs 500 lakhs) by loans and their total capital receipts including 50 lakhs received from the Government of India in 1911 and 4 lakhs from the Government of Bombay in 1913 amounted to Rs 600 lakhs out of which they had spent 29 lakhs on improvement of Government and Municipal lands temporarily vested in them, Rs 568 lakhs on their own acquired estates and 3 lakhs on their office building. The following table taken from the Trust's official report shows the extent of the development operations carried out by the Trust up to the end of the official year 1914-15—

Developed Land.	Sq yards in thousands
Permanently leased	680
Chawl sites	70
Yet to be permanently leased	270
Remainder roads, open spaces etc	451
Total	1 480
Rent of permanently leased area	Rs 11 2 lakhs
Area of undeveloped land in thousands of square yards	5 417
Cost of acquisition	Rs 517 lakhs

The disposal of plots on the Trust's newly developed estates is now progressing at a favourable rate. Experience shows that for obvious reasons the disposal of plots proceeds most slowly when an estate first becomes available for leasing to the public. When the first plots have been taken up and house building begins to assume definite proportions the remaining sites pass off without difficulty. The total plots disposed of during the last official year (1914-15) was much below normal the outbreak of war having stopped progress, just as a recovery was being made from the effects of the bank failures in 1912. During August and September in which months a large number of plots are usually disposed of, only six were let, and of these three were subsequently resumed on the tenants failing through difficulties due to the war. Towards the end of 1914-15 the market became brisker.

By the beginning of 1914-15 completion certificates had been issued for 805 buildings on the Trust Estate exclusive of Police chawls and Trust chawls. In 1914-15 certificates were granted for 41 new buildings.

The Working Classes.

The average total population in the Trust chawls and semi permanent camps was 17,334 in 1914-15. The total rent of the 4,985 rooms in Trust's chawls at the maximum rates works out to Rs 2,31,419 per annum but owing to vacancies in some chawls the maximum for 1914-15 was Rs 2,23,156 or 99.4 per cent of the total recoverable Rs 2,24,408. The

percentage of outgoings to gross chawl revenue is found to be approximately 88.56 per cent, this proportion being higher than in the case of private chawls mainly because private owners spend far less than the Board on the sanitation of their chawls. On the basis of the maximum annual rent of Rs 2,31,419 and outgoings at 88.56 per cent the net annual income works out to 66.40 per cent of Rs 2,31,409 i.e. Rs 1,53,773 i.e. 4.46 per cent on the cost of chawls (including value of land) amounting to Rs 34,50,720 on which the Board pay annual interest and sinking fund charges at 4.61 per cent amounting to Rs 1,59,057 which is Rs 5,279 less than the net annual income as worked out above. The average population of which was 14,906 during the year under review.

With the one exception of the old Nagpada chawls where there are special conditions the death rate in the Trust's permanent chawls has always been considerably below the general death rate in the vicinity. The smallest one-room tenement on the Trust Estate is large enough for a family of five.

A New Method

A further development of method in dealing with insanitary areas is now in prospect. It has already been recognised that estimates on the old wholesale demolition lines would be prohibitively expensive for the large re-presented areas remaining to be dealt with owing to the constantly increasing cost of property and work, and could benefit only small areas surrounded by larger areas in which insanitary conditions are always going from bad to worse with the extension of building operations under the law. Municipal by-laws already referred to. It is recognised that what is wanted is some general scheme of improvement that can be applied all over the city and some means of putting an immediate check to the spread of further insanitary evils through the weakness of the by-laws, especially in relation to the lighting and ventilation of one-roomed tenements. The Trust officers have devoted much time to studying this question and the chairman some time ago propounded a scheme by which all inadequately lighted and ventilated rooms in Bombay might be closed gradually and house owners required with some assistance from public funds to reconstruct their houses so that all rooms in them used for dwellings might have sufficient light and air. The scheme attracted the attention of Government, who appointed a representative committee to consider the new plan. This committee have submitted a report and it is hoped that by the end of 1915-16 solid progress towards the prevention of the development of slums will be recorded.

During the past year there has been an important movement towards the establishment of co-partnership housing societies on the Board's Estate and the Board regard the new departure as one deserving every encouragement at their hands especially in connection with the disposal of land in their Garden Suburb in the north of Bombay island.

Year	Income
	Rs
1908-09	1 20 18,680
1909-10	1 18 30 515
1910-11	1 28 26 171
1911-12	1 30 90 408
1912-13	1 42 46,317
1913-14	1 41 23,435
1914-15	1 44 00 309

The figures of income do not however indicate fully the expansion that has taken place in the operations of the Trust because since the year 1902-03 up to the time of the present war the Commissioners reduced their rates and charges at various times.

The expenditure during the last official year amounted to Rs. 1,00,28,118. This is Rs. 14 lakhs less than in the preceding year.

The decrease in traffic in the port arising out of the war affected the revenue of the Trust to an average extent of about Rs. 2 lakhs a month and in January 1915 the Commissioners resorted to emergent measures of taxation to meet the situation.

Various considerable improvements for the expansion of the port have recently been carried out to provide for the growth of trade. An important project recently undertaken was one for the lighting of the lower reaches of the Hughli with a view to their navigation by night. Considerable progress has been made with a new scheme for the extension of the docks. A special committee was appointed in England in 1912, to visit and inspect British and Continental ports with a view to advising the Commissioner in the light of the latest experience there on various points connected with new works.

But these undertakings only belong to the outskirts of the main problem. The remedial measures of the Port Trust have proved beneficial, but they are insufficient to meet the ever increasing requirements of trade. The question of the congestion at the Calcutta jetties and the absence of adequate transport facilities for the present volume of trade has been engaging the attention of Government for some considerable time past. There has been a very great expansion of the trade of the port and a large increase in the number and tonnage of vessels entering it and the lack of sufficient accommodation has resulted in serious delays to vessels and consequent loss, chiefly arising from the inadequacy of facilities for the discharge of cargo at the jetties.

The Government of Bengal in December 1913, appointed a Committee to investigate the important questions represented by the problem of the future development of the port. The Committee consisted of the Hon. Mr. William Duke of Arundell, Sir Henry Burt the Hon. Mr. A. M. Monteth, the Hon. Mr. J. C. Sengupta, the Hon. Raja Krishnakishore Laha, Mr. A. G. Lytton, and Mr. H. F. Howard members and Mr. R. N. Reid I.C.S., Secretary

The Committee was empowered to—

- (1) examine the existing traffic and port facilities in Calcutta and its immediate neighbourhood
- (2) investigate the present and future requirements of the trade of Calcutta, and
- (3) determine the extent to which the various transport agencies shall provide new works and other facilities in order that these requirements may be fully met for as long a period as it is reasonable to prepare a forecast.

The Bengal Government in an explanatory announcement, agreed that the subject for consideration is one of wider range than an enquiry into the facilities afforded to the import trade at the jetties, and that it concerns rather the question whether proper facilities of all kinds are being provided to enable the port and railway authorities to deal promptly and adequately with the rapidly-expanding trade of Calcutta in accordance with a well-defined and carefully-thought-out policy. There are several projects for improving transport facilities and the railway and other approaches to the port which have been prepared at various times and which are now under consideration such as the provision of railway bridge over the Hughli at Panbhati, the expansion of the docks, the provision of new coaling berths on the Howrah side of the Hughli, the Grand Trunk Canal Project, the removal of the Haskola jute mart and additions to the jetties. These projects are of the first importance and involve enormous expenditure and they should it be rightly held, be examined and co-ordinated by a committee whose duty it would be to make an exhaustive enquiry into the requirements of the trade of the port and the means by which these requirements could be met.

The Committee's report was published in March, 1914. It approved of the new scheme already undertaken by the Port Commissioners for the extension of the Docks, saying we are of opinion that the general layout of the scheme is suitable and that it will ensure an ample margin for the expansion of trade which is likely to take place in any period that can reasonably be foreseen. The Committee said that the main criticism to which the conduct of the Port affairs is open is that the inception of these schemes was delayed until the great increase of trade during the last two years has showed only too conclusively how urgently they were required.

At the same time the Committee recognized the eminent services rendered to the Port by the late Sir Frederick Dumas, during his tenure of office as Vice Chairman of the Port Commissioners stating that the schemes of extension recommended were initiated under his auspices and that their inception is now possible is due to his foresight and to his grasp of the situation.

The Committee considered that the future expansion of the seaborne trade of Calcutta should take place in the neighbourhood of the docks. Their principle conclusions, in addition to their approval of the dock extension scheme, may be summarised as follows. A standing advisory Committee should be appointed in reference to the railway approaches and lay-out of the siding accommodation for the new dock system.

the Committee to consist of the traffic officers of the Port Trust and of the railways concerned. It would be unwise to incur a large outlay in developing the present jetties, but steps should be taken to mitigate the existing defects in regard to them without undue expenditure on schemes that will not be permanently useful. The whole question of the improvement of the river Hughli should be thoroughly investigated and decided on at an early date. The present site of the Howrah bridge should be adopted for the proposed new bridge, which should be wide enough to allow of three streams of traffic in each direction, in addition to the tram.

and should carry greatly widened footways. The Improvement Trust should consider the whole question of road communication in connection with the prospective development scheme of the Port Commissioners. The opening of a second railway bridge over the Hughli will be required eight years hence. The Committee recommended various measures to enable the revenues of the Port Trust to meet the charges on the large capital works contemplated.

The Capital debt of the Port at the end of the last financial year was Rs 9,01,57,798. The total assets amounted to Rs 13,04,00,249.

BOMBAY

The Board of Trustees of the Port of Bombay is constituted of 17 members as follows—

Appointed by Government—The Hon. Sir Frederick I. Spratt Kt. (Chairman), Mr. Navroji Jehangir Gamadia, Mr. Mahomedbhoy Currimbhoy Ibrahim (Messrs. Currimbhoy Ibrahim & Co.), Captain W. Lamaden C.B. (Director of the Royal Indian Marine), Major H. A. J. Hippier R.E. (Agent G. I. P. Ry.), Mr. P. K. Kodis (Collector of Customs Bombay), Mr. Purshotamdas Bhakurdas (Messrs. Narandas Bajarang & Co.), Mr. R. Woodcombe (Agent B. B. & C. I. Ry.), Mr. I. K. Cadell C.B. (Municipal Commissioner, Bombay), Brigadier General W. C. Knight D.S.O. (Military Officer serving with Bombay Brigade).

Elected by the Chamber of Commerce—Mr. A. H. Froom (P. & O. S. N. Co.), Mr. R. W. T. W. Birrell (Messrs. Killick Nixon & Co.), Mr. C. E. Ayala (Messrs. Ralli Brothers), Mr. W. McAl. Houston (British India Steam Navigation Co.), Mr. Nigel F. Paton (Messrs. W. & A. Graham & Co.).

Elected by the Indian Merchants' Chamber and Bureau—The Hon. Mr. Manmohandas Ramji (Messrs. Manmohandas Ramji & Co.).

Elected by the Glass Merchants' Association—Mr. Naranji Haribhai (Messrs. Ramji Purshotam & Co.).

The following are the principal officers of the Trust—

Secretary—Mr. E. E. Hart
Chief Accountant—Mr. J. Tyers

Engineers—Messrs. P. G. Mossant C.I.E. & INST. CE. (Chief Engineer), Mr. A. C. W. Fosbery M. INST. CE. (Deputy Chief Engineer), I. H. Savile, A.M. INST. CE. (Deputy Chief Engineer New Docks Works), C. Anderson (Mechanical Superintendent).

Port Officer—Commander C. S. Hickman.

The revenue of the Trust in 1914 amounted to Rs 1,02,73,192. This is the highest on record in the history of the port, and in excess of the previous highest figure that for 1913-14 by nearly four lakhs. The expenditure from revenue was Rs 1,18,96,535 resulting in a deficit of Rs 16,22,143. This deficit has been met by withdrawal from the Revenue Reserve Fund specially accumulated to meet the temporary deficits anticipated during the first few years following the opening of the new docks and the Port Trust Railway. On capital account the expenditure during the year aggregated Rs 1,07,74,643, of which

Rs 96,13,204 was spent upon new large works—Alexandra Dock and Hughes Dry Dock and the Mazagaon Wharf port extension reclamation including the Port Trust Railway. The total debt of the Trust at the end of the year amounted to Rs 13,09,78,307.

The total trade of Bombay port during the last official year was Rs 149 crores, a decrease compared with the previous year of Rs 6 crores (exclusive of Government transactions) or 28 per cent. The number of steam and square rigged vessels which entered the docks or were berthed at the harbour walls and paid dues excluding those which remained for unloading and loading in the harbour stream during recent years, including last year is shown by the following statement—

Year	Number	Tonnage.
1906-07	1476	2,690,406
1907-08	1477	2,678,840
1908-09	1474	2,633,303
1909-10	1611	2,747,779
1910-11	1589	2,806,625
1911-12	1519	2,767,913
1912-13	1506	2,928,506
1913-14	1579	3,135,597
1914-15	1880	4,417,085

Bombay Port Extension

The Bombay Port Trust have partially completed important new development schemes, which will add greatly to the facilities of the port. Foremost amongst these works comes the Alexandra Dock, the equipment of which will have no superior in the world.

The starting point of the modern port of Bombay was the year 1862 when the Elphinstone Land and Press Company which had already done useful development work, entered into a contract with Government to provide a hundred acres for the terminus of the Great Indian Peninsula Railway receiving in return the right to reclaim from the sea for its own advantage two hundred and fifty acres fronting the properties it had already acquired. The Company brought its estate into bearing with rare enterprise.

Doubts were felt subsequently of the wisdom of conferring upon a private corporation such

an enormous monopoly as the control of the harbour front. These were resolved in 1849 by the decision to buy out the company and vest its properties in a public trust. The estate passed into the possession of the Government in 1859 the purchase price being approximately two millions sterling and after being managed by a department of Government in the interim, the property passed to the newly-constituted Port Trust in June 1873.

Government purchased in 1879 on behalf of the Trust, the private freehold owners rights, at a cost of Rs 75 lakhs and at the same time reconstituted the Trust on a basis on which it has worked exceedingly well until the present day. The late King Emperor Edward VII, during his visit to Bombay in 1875 laid the foundation stone of the first large dock which has since been known as Prince's Dock. This was opened in 1880 and thenceforward the financial difficulties hitherto experienced by the Port Trust disappeared. The construction of the Victoria Dock followed and recent years have provided an unbroken succession of surplus receipts into the treasury of the Port. Out of these profits charges on trade have been reduced wherever they pressed and the financial position of the Trust has greatly been strengthened by the building up of a large revenue by the institution of sinking funds for the repayment of the whole of the existing debt and by liberal appropriations to depreciation accounts.

The trade of the port rapidly outgrew the accommodation provided at Prince's and Victoria Docks. The developments now in progress are the result and are estimated to provide for the requirements of the Port for another 20 years, or longer. The new schemes may be divided into four heads:

(a) The construction of the Alexandra Wet Dock and Hughes Dry Dock, of which His Majesty The King Emperor laid the foundation stone during his visit to Bombay as Prince of Wales in 1905. His Excellency the Viceroy with Her Excellency Lady Hardinge, performed the opening ceremony in March, 1914.

(b) The reclamation for the development of Port facilities of 563 acres with a wharf frontage 2½ miles in length—an addition of some 4½ per cent to the area of the city—at Mazgaon and Sewri, beyond the present Docks at the extreme north of the harbour.

(c) The building of a new railway leading from the main line of the G I P and B B & C. I. outside the city to the Docks, in order to provide for more expeditious handling of heavy railborne traffic and.

(d) The construction of a complete bulk oil installation at Sewri at the north of the docks, with a deep-water pier.

The total estimated cost of the new dock and its equipment is Rs. 6,15,05,469 or say Rs. 61,50,365, cost of the Port Trust Railway over 64 lakhs (£425,000) of the bulk oil installation, 22½ lakhs (£147,500), and of the reclamation and contingent works, Rs. 285 lakhs, or, say Rs. 22,50,000.

The contract for the Alexandra Dock was given to Messrs Price, Wills & Reeves in 1903. The dock is oblong in shape, with two bays at the north end. The total area of the wet basin is 49.52 acres, the length of quays, including the harbour wall, nearly three miles. There are 17 berths 500 ft in length. These berths are equipped with hydraulic cranes and transit shed accommodation varying from 3-storeyed sheds 400 ft long by 120 ft wide to single storeyed sheds 400 ft long by 100 ft wide. Railway sidings run between the quays and the sheds also behind the sheds. On the harbour wall there is a quay 3,000 ft long, equipped with hydraulic cranes and transit sheds. The north end of this quay is intended for a trooping berth. Hydraulic power is used for working the cranes, dock gates, machinery, transit shed lifts, capstans, etc. A floating crane to lift 160 tons forms part of the equipment of the dock. The dock entrance is through a lock on the south west, parallel to which runs the new dry dock a thousand feet long a hundred feet wide and with a sill thirty four and a quarter feet below high water ordinary neap tides.

Outside the dock beyond the entrance lock runs the new mole a continuation of the south west wall alongside which ocean steamers may embark and disembark their passengers direct from the shore thus dispensing with the tiresome interposition of the tender. In the immediate vicinity of the landing pier a Customs house, refreshment and waiting rooms, post and telegraph offices and every facility the traveller can require are under construction.

The small Carnac basin immediately north of the new dock and formerly used by country craft, has been filled in thus creating a canal to be cut from the northern extremity of Alexandra Dock and extending to Victoria Dock. The width of the canal will be 80 ft. Four berths will be provided to permit ships to lie at the wharves on either bank. The waterway will enable ships to be taken into any part of the Bombay dock area through the Alexandra Dock entrance. This will probably lead to the closing of the old dock entrances with the result that ships will be saved much intricate handling and the Port Trust will be relieved of the necessity of expensive dredging operations.

The railway sidings and series of transit sheds in the new dock were planned according to the most modern principles of dock management.

The Sewri reclamation will chiefly be utilized for the accommodation of the export trade of cotton, grain and seeds which form the largest item in the traffic of the port. The old cotton green—or market—is situated at Colaba at the extreme southern end of the port and has long been greatly overcrowded, besides encumbering that end of the port. The new cotton green and godowns on the reclamation will cover about 168 acres with 182½ acres available for future extension. The present greens and godowns at Colaba occupy 50 acres. Unloading sidings with accommodation for 700 wagons are to be provided, in addition to ample running lines, as compared with sidings to hold 15½ wagons at Colaba at present.

KARACHI.

The Members of the Board of Trustees of the Port of Karachi are as follow —

Chairman—Mr H C Miles, C.B.E. M.V.O.

Vice-Chairman—Mr F S Punnett

Appointed by Government—Mr D B Trevor

Major W E R Dickson R.E. Mr T J

Stephen (The National Bank of India Ltd)

Mr W U Nicholas (Anderson & Co.)

Elected by the Chamber of Commerce—The

Honble Mr M. de P Webb O.B.E. (Forbes

Forbes Campbell & Co Ltd) Mr J H Fyfe

(Mackinnon Mackenzie & Co) Mr James

Kenyon (Harday Patrick & Co)

Elected by the Municipality—The Honble

Mr Harchandral Vishindas B.A. LL.B., and

Mr Wadhmal Oodharam B.A., LL.B.

Officers of the Trust are —

Port Officer—Commander M W Farwell

R.I.M.

Secretary—Mr R W Cooper

Chief Engineer—Mr G R Lynn

Superintendent Export and Import—Mr

T S Dunsire

The revenue receipts and expenditure of Karachi port for the year 1914-15 were as under —

Revenue receipts (excluding expenditure

from the Port Fund Account) Rs 3,149,714

Expenditure Rs 3,757,970 **Deficit** Rs 608,256

The revenue receipts in 1913-14 before the

effects of the war were fully experienced were

Rs 48,46,100—the highest ever realized in the

history of the port. The capital debt of the

Port at the close of the last financial year

amounted to Rs 2,82,40,424.

New Port Trust Offices have just been built

and are to be opened by His Excellency the

Governor on January 6, 1915. A new Customs

House has been undertaken.

The number of vessels entering the port in

the last official year was 306 with a tonnage

of 1,935,154 tons, against 2,163 with a tonnage

of 2,058,379 tons in 1913-14. This is exclusive

of vessels put back and fishing boats. The number of steamers which entered the port was 562 against 630 in the previous year. The tonnage of steamers entering the port was 1,823,937 compared with 1,941,407 in the previous year.

Imports landed during the year amounted to 697,058 tons and shipments 1,087,004 tons. Total shipments were 1,015,808 tons in 1914-15 against 1,483,069 tons in 1913-14.

The close of the year 1912-13 marked the practical completion of works the result of which will be a new departure in the history of the Trust. The year 1913-14 found the new

Manfield import yard in full working order and the old yard handed over to the North Western Railway. Development of port facilities is in progress in several other directions.

Plans and estimates were last year submitted to and approved by Government for a West Wharfrage Scheme to provide 16 new berths the cost being estimated at Rs 5,43,77,900 though the Trust anticipate that these estimates

will have to be thoroughly revised. Some Rs 17 lakhs were spent on the scheme up to the end of last year and for the present it is proposed to carry out a portion of the scheme

only as for 6 berths at an estimated cost of over Rs. 14,50,000. Government also sanctioned last year plans and estimates for a Lower Harbour Improvement Scheme costing

Rs 25,25,000 which is a corollary to the other improvements. Under this scheme, the entrance channel will be deepened to a depth

of 32 ft 6 in at L.W.O.S.T. This will enable any ship that can pass through the Suez Canal to enter the harbour and take up a berth at the lowest state of the tide.

The sanctioned draught for the Suez Canal is now 29 feet but 32 feet are being worked up to and it is understood that this will not be the extreme limit.

MADRAS

The following gentlemen are the Trustees of the Port of Madras —

Officials—The Honble Sir Francis J F

Spring K.C.I.E. (Chairman) Mr C W K

Cotton I.C.S. (Collector of Customs) Com-

mander W B Huddleston R.I.M. the Port

Officer and Mr J M Lacey, A.N.C.E.

Non Officials—Khan Bahadur Muhammad

Abdul Kuddus Badsha Sahib M. R. Ry B.A.

Bahadur P. Theagaraya Chetti Garu B.A.

M. R. Ry Diwan Bahadur Govindas Chatur

bhoojadas Garu, M. R. Ry Rao Sahib C.

Ramanujam Chetti Garu

Representing Chamber of Commerce—Mr

G Fraser Mr C B Simpson Mr E Greenall

and the Honble Sir Hugh S Fraser

Trades Association—Mr J H Monzer

The receipts of the Trust from all sources

of revenue during the financial year 1914-15

were Rs 12,57,230 against Rs 15,27,301 of

which Rs 50,000 was the Port Fund contribu-

tion in 1913-14. This represents a decrease

of 17.7 per cent or if the Port Fund contribu-

tions be excluded or about 14.9 per cent in the

year under review. The gross expenditure

out of revenue not counting contributions made

by revenue to capital or to payment of debt

was Rs 9,40,204 or the equivalent of 75.26 per

cent of the gross receipts. The corresponding

percentage for 1913-14 was 62.97 and the average for the past 4 years 69.80. Excluding from working expenses the interest on loans which

in the year under review was Rs 4,87,403 actual working expenses came to 44.44 per cent of the regular harbour earnings against 41.97 per cent in 1913-14.

Vessels of all sorts to the number of 439 and a tonnage of 2,23,464 paid port dues the previous year's figures being 624 and 1,777,410 respectively and about 664,333 tons of exports and imports were dealt with at the port.

Constant improvements of the port are in progress to meet the increasing demands of trade. The Trust recently launched out into a policy of borrowings in order to enable the

entire 200 acres within the enclosed harbour to be deepened from 28 to 32 feet below low water with quay extensions. The Govern-

ment of India sanctioned a loan of Rs 50 lakhs for this purpose. The work has been vigorously proceeded with. The Port

Trust's debt at the end of the official year was Rs 1,08,73,000. The harbour was attacked by the German cruiser Emden on the night of the 22nd September. She fired about 50 high

explosive shells at the oil tanks, setting two of them on fire and doing considerable damage to the Port Trust buildings in the fire zone,

besides hitting the B.L.S.S. Chupra Fortu lately the loss of life was small, three men. The harbour buildings damaged by shell fire were repaired at a cost of Rs. 8620. Two partially filled tanks belonging to the Burmah

Oil Company were completely destroyed and their tinning factory and other buildings were damaged. The loss has been stated by the Chairman of the Company at a meeting of his shareholders to have amounted to £7 812

RANGOON

The personnel of the Commissioners for the port of Rangoon is comprised of the following thirteen members —

Appointed by Government — Sir George Cunningham Buchanan K.C.M.G. Just C.E. (Chairman), Mr. James Algenon Stevens (Chief Collector of Customs, Burma), Mr. William Henry Tarterton (Commissioner of Police, Rangoon), Commander Seymour Douglas Vale R.N.M. (Principal Port Officer Burma), Mr. William Henry Lawson Cabell, B.A. J.C.S. (President, Rangoon Municipal Committee), the Hon. Mr. Arthur William Binning M.P. (Philip Henry Browne and Mr. Henry Batten Huddleston).

Elected by the Burma Chamber of Commerce — Messrs. John Henry Polson (Vice Chairman), Daniel Robertson, Walter Buchanan and John Scott.

Elected by the Rangoon Trades Association — Mr. Maurice Oppenheim.

Officers of the Trust are —
Secretary — Mr. I. Cowling (on leave), Mr. H. Leonard (officiating).

Resident Engineer — Mr. J. L. Holmes.

Electrician Engineer (River Conservancy) — Mr. E. C. Niven.

Dredge Conservator — Mr. B. G. G. Ashton (on leave), Mr. H. N. Hilbert (officiating).

Traffic Manager — Mr. E. H. Krieling (on leave), Mr. J. H. Fritzsche Wells (officiating).

Chief Accountant — Mr. D. H. James.

The receipts and expenditure on revenue account of the port of Rangoon in 1913-14 were as follow —

	Rs.
Receipts	45,88,279
Expenditure	41,84,773

The capital debt of the port fund at the end of the year was Rs. 2,61,84,622.

The total value of the trade of the port during the year was Rs. 4,78,94,5 lakhs as compared

with Rs. 5,67,3 lakhs in the preceding year.

The total imports (landed or sent inland in river craft) from sea going vessels amounted to 1,048,848 tons. Goods loaded from vessels arriving from European ports and elsewhere outside Asia declined by 31.3 per cent and the imports from Asiatic ports declined by 10.3 per cent. The traffic at the jetties for inland vessels totalled 1,185,840 tons. The total number of steamers entering the port was 1,231 (excluding Government vessels) with a total net tonnage of 2,416,110 being a decrease of 4 steamers and 622,111 tons over the previous year.

There took place on the 17th February 1914 the inauguration of the recently completed river training works rendered necessary by the erosion of the right bank of the Rangoon river above the town to such extent as to threaten the permanent diversion of the main stream from the Rangoon foreshore and the consequent formation of a sandbank in front of the whole of the port frontage. The works comprised a training wall 10,000 ft. long and the dredging of a channel through the shoal in front of the wall. It is calculated that 99 per cent of the river is brought under control. One and a half million tons of granite were used in the work. The wall was practically completed one year and nine months before the estimated time. The object of the work has successfully been accomplished, the main channel of the river has been diverted into its new course and the erosion of the right bank has ceased. The revised estimate for the complete work is Rs. 138 lakhs, against the sanctioned estimate of Rs. 150 lakhs. The cost is borne by a free grant of Rs. 50 lakhs from the Government of India and by the raising of port debenture loans. The work being non-revenue producing imposes a burden of some Rs. 5½ lakhs on the trade of the port.

Sir George Buchanan in December 1915 proceeded to Basra to advise the Government of India as to improvements at the mouth of the Shatt-el Arab and elsewhere in that region.

CHITTAGONG

Chittagong, in Eastern Bengal, on the right bank of the Karnaphuli river 19 miles from its mouth was already an important place of trade in the sixteenth century when the Portuguese merchants gave it the name of Porto Grande. The construction of the Assam Bengal Railway has made it the natural outlet for the trade of Assam and part of Eastern Bengal. The chief business is the export of jute which is baled at Narayanganj and either shipped thence by steamer to Chandpur and railled to Chittagong or dispatched direct in brigs to that port. Picegoods, salt and kerosene oil are imported, and rice, tea and hides are the principal exports. The total value of the exports in 1913-14 was £1,332,443 and the total value of the imports in the same year was £941,359.

It has been recommended that this port may be made over to the Assam-Bengal Railway and that funds required for its improvement should be provided by the Government of India out of their railway budgets. This proposal has the support of the Bengal Government and a report on the matter has been submitted to the Secretary of State. The Acting Agent of the Assam Bengal Railway points out in this report that, however valuable the Port of Chittagong might be to the Assam Bengal Railway it should only be after the most careful consideration that the sum of over a crore of rupees already spent upon this port should be added to the Assam Bengal Railway capital, since to do so would mean the further putting back of the prospect of

this railway's paying dividends. He urges therefore that the Government of India should take upon itself the whole of the responsibility for the expenditure required which, he thinks might rightly be done in view of the increasing value to Government to be derived from improving the port. The procedure he suggests

is that the capital of the Port, together with the capital cost of the railway terminal facilities should be included in a separate account and not in that of the Assam Bengal Railway and that this should be financed in the same way as are branch line companies.

VIZAGAPATAM HARBOUR PROJECT

The question of the creation of a harbour at Vizagapatam to supply an outlet for a large area of fertile country hitherto undeveloped and without suitable access to the outside world, has been lately brought to the fore through a report to the Bengal Nagpur Railway Company by their consulting engineers Mr John Wolfe Barry and partners. This report which was based on personal inspection upholds the practicability of creating at no very extravagant cost an inland harbour to which access would be maintained by two breakwaters projecting into the sea and by dredging a channel to the depth (in the first instance) of 24 feet. A deep-water quay would be provided 1,600 feet in length with a possibility of supplying further accommodation in the future. It is understood that the question is meeting with sympathetic consideration on the part of the Indian Government though some doubt seems to exist as to the best means for the furtherance of the object in view. That the creation of such a port would have a beneficial influence on the development of a large area in East Central India seems unquestioned. It is pointed out that Vizagapatam lying as it does in front of the only practicable gap in the barrier of the

Eastern Ghats is formed by nature to be the outlet of the Central Provinces from which a considerable amount of trade has taken this route in the past even with the imperfect communications hitherto available. A necessary complement of the scheme would be the construction of the proposed railway by Parvatipuram to Raipur which, with the existing coast line of the Bengal Nagpur Railway would make a large and rich area tributary to the proposed port, and obviate the long and expensive circuit by Calcutta. A link would also be supplied in the most direct route to Bangkok from Europe by way of Bombay while from an important point of view the possible provision of a fortified port on the long and almost unprotected stretch of coast between Colombo and Calcutta is held to be a consideration of great importance. The lofty projecting headland of the Dolphin Nose would it is pointed out offer facilities for this purpose and it also plays an important part in throwing the strong southerly current out to sea and checking the formation of a bar at Vizagapatam. The total value of the exports from this port in 1913-14 was £295,283 and of the imports £19,205.

BOY SCOUTS

The Boy Scouts movement, initiated in England by Lt Gen Sir Robert Baden Powell (the Chief Scout) has spread widely in India, and the Boy Scouts Association has received the patronage of the Viceroy and the heads of the local governments. The aim of the Association is to develop good citizenship among boys by forming their character—training them in habits of observation, obedience and self-reliance—fostering loyalty and thoughtfulness for others—and teaching them services useful to the public and handicrafts useful to themselves.

The following division of duties of the Indian Headquarters is officially published for information—The Assistant Chief Commissioner deals with all matters of Organisation and Discipline including the issue of Warrants to new Local Associations and Officers, also the registration of new troops, which should be applied for on Form C obtainable from the General Secretary. Recommendations for awards of Life Saving Medals and Certificates should be made to him and also all applications for exemption from the swimming test for Lat-ahs (Regulation 21) and all correspondence on the subject of Challenge Trophies. Correspondence on the above subjects should be addressed to him at Fort William, Calcutta, by Local Secretaries, *except through the District and Provincial Commissioners where such exist. The General Secretary (Captain T. H. Baker, Badway Road, Bangalore)* deals with

routine matters official publications sale of badges, and also all matters connected with the official publication *The Boy Scouts Gazette of India*. Local Secretaries can communicate with him direct on these matters and it is not necessary to refer to the Commissioners on such subjects.

The *Boy Scouts Gazette of India* published monthly is the official organ of the Movement in India and in it are notified all official notices and orders issued by the Indian Headquarters. It is obtainable from the General Secretary. Subscription Rs. 2-8-0 per annum.

HEADQUARTERS STAFF IN INDIA.

Chief Commissioner—Major General E. S. May C.B. C.M.G.

Deputy Chief Commissioner—The Hon. Lieut. General Sir W. R. Birdwood C.B. C.I.E. D.S.O.

Commissioner for Sea Scouts—Captain W. Lenned, C.V.O., A.D.C. R.N., Director, Royal Indian Marine, Royal Dockyard, Bombay.

Assistant Chief Commissioner—J. A. Power, Robertson 32 Dalhousie Square, Calcutta.

General Secretary—Captain T. H. Baker (retired), Badway Road, Bangalore, Mysore and Officiating Treasurer.

Hon. Asst. Secretary to Headquarters Council—Capt. Kenneth Campton A.D.C. to Maj. General May.

Bankers—The Alliance Bank of India, Calcutta.

Famine.

Famine in India is the inevitable accompaniment of economic conditions which leave the bulk of the people dependent on the soil for their means of livelihood. It is intensified, because the produce of the soil over the greater part of India is dependent on a short rainy season, and the rains are erratic and subject to violent fluctuations. It falls with exceptional severity on India because the soil is divided into a multitude of petty holdings, tillled by people without any capital, living for the most part from hand to mouth, and amongst whom credit ceases to exist as soon as the rains fail. In other agricultural countries, there are good seasons and bad, but there is none other with the possible exception of China, where in a famine year millions of acres may not yield so much as a blade of grass except under artificial irrigation. The conclusion to be drawn from these conditions is that for many years to come India must be susceptible to famine. The shock of famine may be mitigated by the spread of railways, by the development of irrigation, the growth of manufacturing industry and the improvement of rural credit. There is evidence that all these forces are tending greatly to reduce the social and economic disturbance caused by a failure of the rains. But they cannot entirely remove it.

Famine under Native Rule

At one time there was a general tendency to attribute famine in India entirely to the effect of British rule. In the golden age of India, we were told—whenever it may have been—famine was unknown. But India had been drained of its resources of food by the railways, the people had been impoverished by the land revenue demand and the country as a whole had been rendered less capable of meeting a failure of rains by the "Drain" caused by the Home Charges (c). These fallacies have disappeared under the inexorable logic of facts. A better knowledge of Indian history has shown that famines were frequent under Native rule and frightful when they came. "In 1830," says Sir William Hunter in the History of British India, "a calamity fell upon Gujarat which enables us to realise the terrible meaning of the word famine in India under Native rule. Whole cities and districts were left bare of inhabitant." In 1631 a Dutch merchant reported that only eleven of the 260 families at Swally survived. He found the road thence to Surat covered with bodies decaying on the highway where they died, there being none to bury them. In Surat that great and crowded city he could hardly see any living persons, but "the corpses at the corner of the streets lie twenty together nobody burying them. Thirty thousand had perished in the town alone. Pestilence followed famine." Further historical evidence was adduced by Sir Theodore Morrison, in his volume on the Economic Transition of India. The "Drain" theory has been exploded. It has come to be seen that while railways have checked the old-fashioned practice of storing grain in the villages, they have made the reserves, where they exist, available for the whole of India. In

India there is now no such thing as a food famine: the country always produces enough food for the whole of the population. Famine when it comes is a money famine, and the task of the State is confined to providing the means for those affected by drought to earn enough to buy food. The machinery whereby this is done will be examined after we have seen the experiences through which it was evolved.

History of recent famines.

The Orissa famine of 1865-67 may be taken as the starting point because that induced the first great and organised effort to combat distress through State agency. It affected 180,000 square miles and 47,500,000 people. The Bengal Government was a little slow in appreciating the need for action, but later food was poured into the district in prodigious quantities. Thirty-five million units were relieved (a unit is one person supported for one day) at a cost of Rs. 95 lakhs. The mortality was very heavy and it is estimated that a million people or one-third of the population died in Orissa alone. This was followed by the Madras famine of 1866 and the famine in Western India of 1868-70. The latter famine introduced India to the great migration from Marwar which was such a distinguishing feature of the famine of 1899-1900. It is estimated that out of a total population of a million and a half in Marwar one million emigrated. There was famine in Behar in 1873-74 then came the great South Indian famine of 1876-78. This afflicted Madras, Mysore, Hyderabad and Bombay for two years, and in the second year extended to parts of the Central and United Provinces and to a small tract in the Punjab. The total area affected was 257,000 square miles and the population 58,500,000. Warned by the excessive expenditure in Behar and actuated by the desire to secure economy, the Government relief programme was not entirely successful. The excess mortality in this famine is said to have been 5,250,000 in British territory alone. Throughout British India 700,000,000 units were relieved at a cost of Rs. 84 crores. Charitable contributions from Great Britain and the Colonies aggregated Rs. 84 lakhs.

The Famine Codes.

The experiences of this famine showed the necessity of placing relief on an organised basis. The first great Famine Commission which sat under the presidency of Sir Richard Strachey elaborated the Famine Code, which amended to meet later experience, forms the basis of the famine relief system to-day. They recommended (1) that employment should be given on the relief works to the able-bodied, at a wage sufficient for support, on the condition of performing a suitable task and (2) that gratuitous relief should be given in their villages or in poor houses to those who are unable to work. They recommended that the food supply should be left to private agency, except where that was unequal to the demands upon it. They advised that the land-owning classes should be assisted by loans, and by general suspensions of revenue in proportion to the crop failure. In sending a provisional

famine Code to the provincial governments, the Government of India laid down as the cardinal feature of their policy that the famine wage is the lowest amount sufficient to maintain health under given circumstances. Whilst the duty of Government is to save life, it is not bound to maintain the labouring population at its normal level of comfort. Provincial codes were drawn up and were tested by the famines of 1896-97. In that 307 000 square miles were affected with a population of 69,500 000. The numbers relieved exceeded 4 000 000 at the time of greatest distress. The cost of famine relief was Rs. 7½ crores revenue was remitted to the extent of Rs. 1½ crore and loans given aggregating Rs. 1½ crore. The charitable relief fund amounted to about Rs. 1½ crore, of which Rs. 1½ crore was subscribed in the United Kingdom. The actual famine mortality in British India was estimated at 750 000. The experience of this famine was examined by a Commission under Sir James Lyall, which reported that the success attained in saving life and the relief of distress was greater than had ever been recorded in famines comparable with it in severity and that the expense was moderate. But before the Local Governments had been given time to digest the proposals of this Commission or the people to recover from the shock, the great famine of 1899-1900 supervened.

The Famine of 1899 1900

This famine affected 475 000 square miles with a population of 59 500 000. In the Central Provinces Berar Bombay Ajmer and the Hissar district of the Punjab famine was acute. It was intense in Rajputana, Baroda, Central India, Hyderabad and Kathiawar. It was marked by several distinctive features. The rainfall over the whole of India was in extreme defect being eleven inches below the mean. In several localities there was practically no rain. There was in consequence a great fodder famine with a terrible mortality amongst the cattle. The water supply was deficient and brought a crop of difficulties in its train. Then districts like Gujarat where famine had been unknown for so many years that the locality was thought to be famine immune were affected, the people here being softened by prosperity along to their villages in the hope of saving their cattle and came within the scope of the relief works when it was too late to save life. A very large area in the Native States was affected and the Marwaris swept from their impoverished land right through Central India like a horde of locusts leaving desolation in their train. For these reasons relief had to be given on an unprecedented scale. At the end of July 4 500 000 persons were supported by the State. Rs. 10 crores were spent on relief and the total cost was estimated at Rs. 15 crores. The famine was also marked by a widespread acceptance by Native States of the duty hitherto shouldered by the Government of India alone—the supreme responsibility of saving human life. Aided by loans to the extent of Rs. 3½ crores the Native States did a great deal to bring their administration into line with that in British India. Although actual deaths from starvation were insignificant, the extensive outbreaks of cholera, and the devastating epidemic of

malaria which followed the advent of the rains, induced a famine mortality of approximately a million. The experience of this famine were collated by the Commission presided over by Sir Antony MacDonnell. This Commission reported that taking the famine period as a whole the relief given was excessive and laid down certain modified lines. The cardinal feature of their policy was moral strategy. Pointing out that if the people were assisted at the start they would help themselves, whilst if their condition were allowed to deteriorate it proceeded on a declining scale, they placed in the forefront of their programme the necessity of putting heart into the people. The machinery suggested for this purpose was the prompt and liberal distribution of tugal loans the early suspension of revenue and a policy of prudent boldness starting from the preparation of a large and expensive plan of relief and secured by liberal preparations, constant vigilance, and full enlistment of non-official help. The wage scale was revised the minimum wage was abolished in the case of able-bodied workers payments by results were recommended and proposals were made for saving cattle.

Success of the new policy

The effectiveness of this machinery was partly demonstrated during the three lean years which followed the great famine in the Bombay Presidency. But it received its most conspicuous demonstration when the rains failed in the United Provinces in 1907-08. Moral strategy was practised here on an unprecedented scale tugal loans being granted with the greatest liberality. The effect of these measures was succinctly indicated by the Lieutenant-Governor of the United Provinces, Sir John Hewett in a speech in summarising his administration prior to his departure in England in March 1912. He showed that in the autumn harvest of 1907 there was a shortage of 4 million tons of food grains and in the spring harvest a shortage of 8 million tons giving a total of seven million tons or the food supplies for the Province for nine months and an economic loss of 458 million pounds. The Government advanced £1½ million to cultivators for temporary purposes and large sums for wells and permanent irrigation. The whole of this sum was repaid except fifty four thousand pounds remitted owing to a second bad season and twenty five thousand pounds then outstanding. By common consent a great famine had never been met with less loss and suffering to the people and two years later hardly a trace of it remained. In 1911 the rainfall failed over a considerable area in Gujarat in the Bombay Presidency and again in 1912 in the Ahmednagar District of the Bombay Deccan and both these partial failures demonstrated that the shock of famine is far less severe now owing to the increased resourcefulness of the people, than it was so late as 1899. Still further evidence in the same direction was furnished when the rains failed over large areas in the United Provinces in 1918-19. This famine affected 17,000 square miles with a population of 5½ millions, whilst distress was grave in 30,000 square miles with a population of 14 millions.

Three points soon emerged from the year—the people showed greater resisting power owing to their improved economic condition, they met the emergency with wonder at courage and resource, and the application of the relief programme brought the numbers on public works within manageable proportions, and induced the speedy return of the people to their normal avocations when the advent of bountiful rains in 1914 enabled agricultural operations to be generally resumed.

The Government of India is now in possession of complete machinery to combat the effects of drought. In ordinary times Government is kept informed of the meteorological conditions and the state of the crops. Programmes of suitable relief works are kept up to date the country is mapped into relief circles, reserves of tools and plant are stocked. If the rains fail, policy is at once declared, non-officials are enlisted, revenue suspended and loans for agricultural purposes made. Test works are then opened, and if labour in considerable quantities is attracted, they are converted into relief works on Code principles. Poor houses are opened and gratuitous relief given to the infirm. On the advent of the rains the people are moved from the large works to small works near their villages, liberal advances are made to agriculturists for the purchase of plough, cattle and seed. When the principal autumn crop is ripe the few remaining works are gradually closed and gratuitous relief ceases. All this time the medical staff is kept in readiness to deal with cholera which so often accompanies famine and malaria, which generally supervenes when the rains break. Recent experience goes to show that never again will the Government of India be compelled to distribute relief on the tremendous scale demanded in 1899-1900. The high prices of produce have given the cultivators considerable resources, the extension of irrigation has protected a larger area and labour has become more mobile utilising to the full the increasing industrialism of the country. For instance in 1911 the rains in Gujarat failed completely yet there was little demand for relief works, and the necessities of the cultivators were rather for fodder for their cattle than for money or food for themselves. Various schemes are now under consideration for the establishment of fodder reserves in the villages.

Famine Protection.

Side by side with the perfection of the machinery for the relief of famine has gone the development of famine protection. The Famine Commission of 1880 stated that the best and often the only means of securing protection from the extreme effects of famine and drought, are railways and irrigation. There are of two classes, productive and protective. Productive works being estimated to yield profits which will pay interest and sinking fund charges are met from loans. Protective works, which do not pay, directly from revenue. In order to guarantee that there should be continuous progress with protective works, the Famine Insurance Grant was instituted in 1878. It was decided to set apart from the

general revenues Rs. 1½ crores annually, or one million sterling. The first charge on this grant is famine relief, the second protective works, the third the avoidance of debt. The chain of protective railways is now practically complete. Great progress is being made with protective irrigation. Acting on the advice of the Irrigation Commission (p) an elaborate programme of protective irrigation works is being constructed particularly in the Bombay Deccan—the most famine susceptible district in India—and in the Central Provinces. When these are completed, the shock of drought will be immensely reduced.

The Indian Famine Trust.

Outside the Government programme there is always scope for private philanthropy especially in the provision of clothes, help for the superior class poor who cannot accept Government aid, and in assisting in the rehabilitation of the cultivators when the rains break. At every great famine large sums have been subscribed particularly in the United Kingdom, for this purpose and in 1899-1900 the people of the United States gave generous help. With the idea of providing a permanent famine fund, the Maharaja of Jalpur gave in 1900 a sum of Rs. 16 lakhs, in Government securities, to be held in trust for the relief of the needy in time of famine. This Trust has now swollen to Rs. 25 lakhs, chiefly from gifts by the founder's family. It is vested in trustees drawn from all parts of India, and is freely used in an emergency. Substantial grants were given for the Bombay relief fund in 1911 and for the relief of the distress in Ahmednagar (Bombay Deccan) in 1912. The report of the Trust for 1914 states that towards the end of December 1913 the Government of the United Provinces applied for a preliminary grant in-aid of Rs. 50,000 with the object of alleviating the distress caused by the unfavourable nature of the monsoon. The application was considered and sanctioned at the meeting held on the 12th January. In March the Local Government applied for an additional grant of Rs. 30,000 which they proposed to utilise in supplying extra comforts to emaciated persons, especially children, and for the issue of clothing to destitute persons in poor houses and on relief works and at the meeting held on the 20th April this was sanctioned. To meet the second grant the Board found it necessary to sell Government paper for Rs. 41,400 out of the temporary investment.

The statement showing details of the assets of the Trust as at 31st December 1914 stated that the Endowment Fund invested in Government securities vested in the Treasurer of Charitable Endowments as in the previous year was Rs. 28,10,000. Government Securities representing assets temporarily invested stood in 1913 at Rs. 7,02,000. The sales during the year amounted to Rs. 41,400 leaving a balance at the close of the year of Rs. 6,60,800. This with cash in current account in the Bank of Bengal stood at Rs. 1,11,744-8-8 leaving a total available for expenditure of Rs. 7,72,344-8-8 and the total value of the Trust amounted to Rs. 35,82,344-8-8.

Co-operation in India.

Before the end of the last century the Co-operative movement had proved so successful in its attempt at generating rural life in countries with such diverse conditions as Germany Italy Switzerland and Ireland that enthusiasts like Mr Wolff social workers like the late General Booth and Indian administrators like Sir Anthony (now Lord) Macdonnell and Mr Duperreux were anxious to introduce the movement to improve the economic and moral condition of the Indian ryot. More than sixty per cent of the vast population of India subsists on agriculture and the majority of these millions generally live under present conditions, from hand to mouth. The ryot's occupation is healthy and productive and he is proverbially honest and straightforward in his dealings except when years of famine and hardship make him at times crafty and reckless. Owing to his poverty combined with deficiency in education and consequent lack of foresight however he has to incur heavy debts to meet occasional expenses for current seasonal purposes, the improvement of his land or for ceremonial purposes and he has therefore to seek the assistance of the local money lender known as the Sowkar or the Mahajan. The rates of interest on such advances vary from province to province and even in different parts of a province. The average rate ruling throughout Bombay Presidency is lower than in most other provinces and there are again variations in the rate in the Presidency itself: it is 6 to 12 per cent in Gujarat and 12 to 24 per cent in parts of Deccan while it rises to the enormous figure of 50 per cent in several tracts. In addition to charging these excessive rates the Sowkar extorts money under various pretexts and takes from the needy borrower bonds on which heavy stamp duties are payable. One of the chief causes of the ryot's poverty is that owing to the absence of security and his short-sightedness due to want of education he does not as a rule collect and lay by his savings but fritters away his small earnings in extravagant and unproductive expenditure on the purchase of trinkets and ornaments and on marriage and other ceremonies. In some cases he hoards coins under the ground with the likelihood that on his death the money is lost to his family for good. This absence of thrift and the habit of dependence in case of difficulty on the Government or on the Sowkar are the bane of his life. There is besides a total absence of ideals or desire for progress. A Co-operative Society would change all this inasmuch as it would provide him with a suitable institution in which to lay by his savings and would teach him the valuable lesson of self-help through the sense of responsibility he would feel in being its member. Thus the chronic poverty and indebtedness of the Indian agriculturist afford a very good field for the introduction of co-operative methods especially as his work is of a productive character likely to enable him to earn a better living under circumstances more favourable than they are at present.

First Scheme Proposed—The question of improving rural credit by the establishment of Agricultural Banks was first taken up in the early nineties when Sir W. Wedderburn, with

the assistance of the late Mr Banerjee prepared a scheme of Agricultural Banks which was approved of by Lord Ripon's Government but was not sanctioned by the Secretary of State. The matter was not again taken up until about fifteen years later when Lord Wellesley's Government in Madras deputed one of its ablest officers Mr F. A. (now Sir Frederick) Nicholson to report on the advisability of starting Agricultural and other Land Banks in the Presidency for the relief of the agriculturists. Sir Frederick had prepared himself by a thorough study of Agricultural Banks and Co-operative Societies and had visited many European countries to see for himself the various developments of the co-operative movement. He was also conversant with the social conditions of the Presidency where there had been in existence an institution called the Nidhi which corresponded in some respects to the Prudent Fund and Friendly Societies in European countries. Though these institutions provided cheap local capital to the agriculturists the spirit of co-operation was lacking in them. This want was supplied in early times by the Village Panchayats which showed to what extent communal life and ideas of local self-government had developed in India. Sir Frederick after thoroughly going into the conditions of the Presidency submitted an exhaustive report to Government suggesting that the formation of Co-operative Societies afforded an excellent means for relieving rural indebtedness. The report surveyed the growth of the co-operative movement in European countries the conditions favourable to its development in India if introduced and the difficulties to be encountered in introducing it and making it a success here. Finally it contained for the consideration of Government a draft Bill for the organization of Co-operative Societies. Sir Frederick pleaded for concessions to be given to the Societies—such as exemption from the Income-tax and remission of the stamp duty—as he felt that it would be possible to attract the people to the new movement only if Government showed its active sympathy towards it at the commencement. He ended with a fervent appeal to the non-official community to find a Ralleisen who would help the ryots of this country in achieving results equal to those obtained by Ralleisen's noble efforts in Germany. Unfortunately the report was not received favourably either by the non-official public or by the Government of Madras and no action was taken on its suggestions.

Famine Commission of 1901—The next few years saw two of the worst famines that India had ever suffered from and in 1901 Lord Curzon appointed a Commission to report on the measures to be adopted in future to prevent famines and to protect the ryot from their ravages. The Commission laid stress on the proper working of the Agriculturists' Loans and the Land Improvement Loans Acts under which takavi advances are made to cultivators. This system was given a long trial in the years previous to the great famines as well as during the ten years succeeding the 1899-1900 famine. But it is acknowledged on all hands that the system has been a failure

as it is clear that it is not facility for obtaining cheap capital alone which will raise the agriculturalist and relieve him from his debts but the provision of capital combined with the inculcation of habits of thrift and self-help. The Commission also recommended that the principal means of relieving famines was by strengthening the moral backbone of the agriculturalist and it expressed its view that the introduction of co-operation in rural areas might be useful in securing this end.

Co-operative Credit Societies Act—These recommendations induced Lord Curzon to appoint a Committee with Sir Edward Law at its head to investigate the question and a Report was submitted to Government recommending that Co-operative Societies were worthy of every encouragement and of a prolonged trial. Sir Anthony (now Lord) Macdonald and others were at the same time making experiments on similar lines in the United Provinces and the Punjab with satisfactory results. All these activities however took a practical shape only when Lord Curzon with his zeal for getting things done which made him famous in India took up the question in all earnestness and his Government introduced in the Supreme Legislative Council a Bill to provide for the constitution and control of Co-operative Societies. The main provisions of the Bill which became the Co-operative Credit Societies Act (Act X of 1904) were—

(1) That any ten persons living in the same village or town or belonging to the same class or caste might be registered as a Co-operative Society for the encouragement of thrift and self help among the members.

(2) The main business of a Society was to raise funds by deposits from members and loans from non members. Government and other Co-operative Societies, and to distribute money thus obtained by way of loans to members or with the special permission of the Registrar to other Co-operative Credit Societies.

(3) The organization and control of Co-operative Credit Societies in every Presidency were put under the charge of a Special Government Officer called the Registrar of Co-operative Credit Societies.

(4) The accounts of every society were to be audited by the Registrar or by a member of his staff called the Auditor of Co-operative Credit Societies.

(5) The liability of a member of a society was to be unlimited in the case of a Rural Society.

(6) No dividends were to be paid on the profits of a rural society but the profits were to be carried at the end of the year to the Reserve Fund although when this fund had grown beyond certain limits fixed under the bye-laws a bonus might be distributed to the members.

(7) In the case of Urban Societies no dividend was payable until one fourth of the profits in a year were earned to the Reserve Fund.

Soon after the passing of the Act the local Governments in all the Presidencies and major provinces appointed some of their best officers as Registrars with full powers to organize

register and control the management of societies. In the early stages of the working of this Act Government loans were freely given and the response to the organizing work of the Registrar was gradual and steady throughout most parts of the country.

New Act Introduced—As co-operation progressed in the country defects were noticed in the Co-operative Credit Societies Act and these were brought to the notice of Government by the Provincial Conferences held under the auspices of Local Governments in various Presidencies as well as by the Annual Conferences of the Registrars. In two directions the need for improved legislation was especially felt. In the first place the success of credit societies had led to the introduction of Co-operative Societies for distribution and for purposes other than credit for which no legislative protection could be secured under the then existing law. And in the second place the need for a freer supply of capital and for an improved system of supervision had led to the formation of various central agencies to finance and control the original credit societies and these central agencies ran all the risks attendant on a status unprotected by legislation. The Government of India recognizing the need for removing these defects decided to amend the old Act and a Bill embodying the essential alterations proposed was introduced in the Imperial Legislative Council and after a few amendments it emerged from the Council as the Co-operative Societies Act (II of 1912) replacing Act X of 1904. The outstanding features of the new Act were as follows—

(a) It authorized the formation of societies for purposes other than credit which was possible under the old Act only with the special permission of the Local Government. Thus extension of Co-operation to purposes other than credit marks an important stage in its development in India.

(b) It defined in precise terms the objects for which Co-operative Societies could be organized.

(c) It removed the arbitrary division of societies into Rural and Urban.

(d) It facilitated the growth of sound central agencies by insisting on a limited liability by means of a special clause about the registration of a society one of whose members is a registered society.

(e) It empowered the Local Government to frame rules and after bye-laws so as to put restrictions on the dividends to be declared by societies and allowed them the discretion to sanction distribution of profits in the case of unlimited liability societies to their members.

(f) It allowed societies with the permission of the Registrar to contribute from their net profits after the Reserve Fund was provided for amounts up to 10 per cent of their remaining profits to any charitable purpose as defined in the Charitable Endowments Act. This kept the movement in touch with local life by permitting societies to lend assistance to local educational and charitable institutions.

(g) It prohibited the use of the word "Co-operative" as part of the title of any business concern except a registered society.

Composition of the Capital of Agricultural Societies.—On the organisation of agricultural credit was necessarily concentrated the attention of the promoters, for it presented a far more important and far more difficult problem than industrial credit. There was a great variety of types among the agricultural societies started in different provinces and some Registrars adopted the Schulze-Delitzsch, some the Raiffeisen and some the Luzzatti methods in their entirety. The best course as pointed out by Mr. Wolff would have been to start a few model societies and leave the movement to develop on the lines which most suited the peculiar requirements and conditions of the country. The commonest type as in the Punjab, Burma and the United Provinces was the unlimited liability society with a fee for membership and a small share capital the share payments to be made in instalments. In some cases the system insisted on compulsory deposits from members before entitling them to enjoy the full privileges of membership. The system in Bombay, Bengal and the Central Provinces was entirely different there being no share-capital but only a membership-fee. Part of the working capital was raised by deposits from members and other local sympathisers but the bulk of it was obtained by loans from Government and other Co-operative Societies. In all the Provinces the Government set apart every year a certain sum to be advanced as loans to newly started Co-operative Societies usually up to an amount equal to the deposits from members raised by a society. This practice though necessary in the initial stages of the movement as stimulating the placing of deposits with societies. In other cases led to crooked means to secure such deposits and sometimes worked as a real hardship in poor districts. In the long run it proved a hindrance to the development of the co-operative spirit by having taught people to expect State aid for every new society. Happily State aid in the form of money doles has now become an exception rather than the rule and this withdrawal in no way hampers the growth of the movement on account of the rapid increase of financing agencies like District and Provincial Central Banks and the growth of public confidence in the primary societies. For agricultural societies generally the four main sources of income are share capital deposits of members loans and deposits from non members and from Central and other Societies and the contribution to the total working capital each of these heads of income is of in round numbers that indicated below —

	Rs
Shares	52 00 000
Deposits from members	36 00 000
Loans and deposits from non members	37 00 000
Loans and deposits from other societies	2 48 00 000
State Aid	9 00 000
Reserve Fund	24 00 000

In some Provinces notably in the Punjab and Bombay, the members shares and deposits form more than 25 per cent. of the working capital.

Constitution of Agricultural Societies.—The typical Agricultural Society in India corresponds to the Raiffeisen society the management being gratuitous the profits individual and the area of work limited. Usually the Secretary especially if he is a *bona fide* member of the Society gets a monthly pay of Rs. 1 to Rs. 5 with a bonus at the end of the year equal to a fourth of annual profits. In parts of the country there are villages where a few literate men may be found but most of these are hardly fit enough to undertake the responsible work of a Secretary being practically ignorant of account keeping. In these cases either the village school master or the village accountant known in Bombay as the Kulkarni or Talati is appointed to the post with a remuneration a little higher than that paid to the Secretary who is a *bona fide* member. In some places where a suitable person is not available on this low pay neighbouring societies are grouped together with a whole time well paid and competent Secretary. This arrangement which has its advantages involves the drawback that the outsider working as Secretary does not naturally feel as much interest about the Society as working as a *bona fide* member does.

Internal Management of Societies.—The Managing Committee consists of 5 to 9 intelligent members of the Society the Chairman being usually the leading person in the village. The daily work of the Society is carried on by the Secretary but the Managing Committee supervises the work and has alone the power to admit new members to receive deposits, arrange for outside loans grant loans to members and take notice of defaulters. The accounts of the Society are kept by the Secretary and the necessary forms, papers and books are supplied from the Registrar's office to simplify the work of the Secretary. The books are kept according to the rules framed by the local governments and are open to inspection by important local officials and the Registrar and his staff. The accounts are audited at least once a year by the Auditor of Co-operative Societies and the Societies are inspected from time to time by specially appointed inspectors. The loans are mostly given on the security of two co-members or rarely on the simple bond of the borrower. Under the Act the Societies are allowed to advance loans on the hypothecation of moveable or immovable property and there is nothing unco-operative in this so long as personal security which is the central principle of co-operation is given and the borrower's property only a secondary or collateral protection. Mortgages are taken occasionally especially in the case of long term loans and loans for the liquidation of old debts. In some Provinces more general use has been made of mortgage than in others and they have been at times more freely employed than is necessary. In Madras the percentage of loans secured on mortgage on the total amount advanced during 1913 was 47, in Bombay 43, in Burma 36 the average for all the Provinces being 14 per cent. This feature is noteworthy as real credit, on a wholesale scale is not quite compatible with the true spirit of co-operation. At the Annual General Meeting, held within a month of the close of the Co-operative year, the accounts are submitted, the balance-sheet passed and a new Managing Committee with,

If necessary a new chairman and secretary is elected. The general meeting fixes the borrowing limit of individual members lays down the maximum amount upto which the Managing Committee may borrow during the ensuing year disallows members for misconduct or serious default and settles the rates of interest for loans and deposits. As these meetings are informal other local topics of public utility are sometimes discussed. All the net profits of the society are annually carried to the Reserve Fund which is advisable that a incapable of dividend on as dividend or bonus which cannot be drawn upon without the sanction of the Registrar and which must be invested in such a manner as the Registrar prescribes. It is intended to meet unforeseen losses and to serve as an asset of security in borrowings. Except in the Central Provinces and Madras the Reserve Funds of primary societies are

generally utilised as an add-on to their working capital though steps are being taken in some parts of the country to stop this practice and to insist on the Reserve being kept entirely apart from the working capital and invested in Government securities or placed as floating deposits in reliable Central Banks. The Government of India state in their Resolution of 7th June 1914 that while there may be advantages in the earlier stages in using the Reserve as part of the working capital of the society it should gradually as it becomes more important be set apart for separate investments. The amount of the Reserve Fund of agricultural societies is roughly 24 lakhs of Rupees and forms 6.9 per cent of their total liabilities and with the addition of the last year's profits to be carried to Reserve, 12 per cent of the total outside capital of the societies including members deposits.

Progress of the Movement—The following statement shows the progress of Agricultural Societies up to the end of the official year 1913-14.

Provinces	Number of Societies	Number of Members	Total Working Capital	Reserve Fund	Net Profit during the year 1912-13	Usual Rate of Interest on Loans to Members
			Rs	Rs	Rs	Per cent
Madras	1,236	77,902	35,79,926	2,89,019	1,17,740	9½
Bombay	534	40,470	28,01,119	1,44,997	8,262	9½
Bengal	1,647	71,282	44,11,613	3,31,471	1,64,382	10
Bihar and Orissa	766	37,720	13,45,297	88,191	71,904	10½
United Provinces	2,560	99,591	50,71,014	2,36,638	1,20,878	10
Punjab	1,261	156,250	1,30,46,919	8,60,271	6,30,888	12½
Burma	1,214	29,880	32,65,894	2,81,924	1,85,895	15
Central Provinces	2,087	94,311	2,76,239	77,855	50,482	12
Assam	224	11,546	2,90,887	40,091	13,464	12½ to 18½
Coorg	31	2,849	7,00,393	10,896	6,114	12½
Ajmer	562	10,387	7,80,011		21,455	12
Mysore	410	21,470	7,00,120	11,638	34,820	9 to 12
Beroda	248	6,913	4,23,807	48,220	24,543	9½
TOTAL	14,538	599,821	4,04,01,689	24,55,18	15,21,486	

The progress of the movement in different provinces varies according to the activity in organisation work as well as the special conditions of each province—the prevailing rates of interest being the most important of these. A few Native States have also introduced legislation similar to the Co-operative Societies Act in their territories and the most prominent of these are Mysore and Beroda. Hyderabad, Gwalior and Indore have only very recently introduced co-operation in their States. The results of the experiment have been as satisfactory as in British India.

Non-agricultural societies—Just as rural societies are the means of resuscitating the agricultural and other small village industries a class of societies called the non-agricultural societies has grown in towns and cities for improving the economic and moral condition of artisans and small traders, members of particular caste and employees and of big firms and Government departments. These societies have usually a limited liability. This is due to the fact of their work not being com-

pact as in the case of agricultural societies where every member may be expected to know every other member. Their constitution is based on the Schulze-Deutsche model and in most cases the management is honorary though sometimes when the sphere of society's work is extended a paid staff is employed. There is in all societies a substantial share capital payments being made in instalments, and the rest of the working capital is obtained by local deposits from members and others and loans from co-operative and Joint Stock Banks. At the end of every year one-fourth of the net profits must be carried to the reserve fund and the balance may be distributed as dividend or bonus. There are a few serious drawbacks in the working of these societies and complaints about them are noticeable in many of the Registrar's annual reports. The most serious of these complaints are that the spirit of co-operation is lacking in many non-agricultural societies, that there is too great a desire to go in for profits and dividends and a growing tendency to make the societies close preserves

once they have started running on profitable lines. The rates of interest on loans are at times higher than they ought to be and the men at the head of the societies are loth to admit new members who are in need of loans for fear of the latter cutting down the profits. Societies of employees of firms railway companies and Government offices and societies for the redemption of the debts of men of the so-called depressed classes however work on sounder lines and provide good instances of the success of agricultural co-operation. A few labourers' societies have been started in the Bombay

Presidency but with these the spread of co-operation among the labouring class in industrial cities ends. There are, again, a few societies on the lines of village Popular Banks of Europe to assist small, on agricultural traders and artisans and some efficient societies comprising members of particular communities. Some of these non agricultural societies after meeting the needs of their members have large balances on hand which they are allowed with the previous sanction of the Registrar to advance to smaller societies.

Progress of Non agricultural Societies—The following statement shows the progress of Non-agricultural Co-operation up to the end of the year 1913-14—

Provinces	Number of Societies	Number of Members	Total Working Capital	Reserve Fund	Net Profit during the year 1912-13
			Rs	Rs	Rs
Madras	66	21 604	15 21 849	89 703	67 442
Bombay	123	26,625	19 65 168	67 348	75,578
Bengal	80	14 352	12 90 049	52 762	40 890
Bihar and Orissa	41	12 171	1 49 019	7 173	1, 448
United Provinces	185	5 750	4 37 428	18 812	14 900
Punjab	54	2 263	8 53 651	19 351	21 024
Burma	49	1 414	6 14 195	63 331	46 182
Central Provinces	88	1 778	93 286	10 864	8 083
Assam	16	1 672	2 22 305	12 863	11 906
Coorg					
Ajmer					
Mysore	109	18 209	11 16 207	42 491	75 143
Baroda	13	655	38 389	837	1 185
TOTAL	806	109 684	83,24 670	3 85 130	3 88 606

NOTE—The rates of interest on loans in the different provinces are the same as in the case of the agricultural Societies

Loans advanced—The total amount of loans advanced to members by agricultural and non agricultural societies during the year 1913-14 were Rs 9 62 68 014 and Rs 77,25 163 respectively as against the total of less than Rs 25 lakhs issued by both these classes of societies in the year 1906. Reports from all the Provinces do not give statistics regarding the objects for which loans are advanced but from those published in some of the Provinces it appears that the percentage of loans given for cultivation expenses by agricultural societies is 6 in Madras 9 in Bengal, 14 in Bihar and Orissa, 9 in the Punjab and 24 in the Central Provinces and that loans for purchase of cattle form 11% 10% 14% 20% and 40% of total amount of loans advanced in the respective Provinces. Loans for repayment of old debts are frequent as is apparent from the fact that in Madras

they form 44% of the total amount of loans given in Bengal also 44%, in Bihar and Orissa 26% in Punjab 17% and in the Central Provinces 24%. As the movement progresses it is being more and more realised that the early clearance of a member from previous debts after his admission to a society is very desirable and greater attention is being bestowed by the Registrars on this question. It is impossible to insist on the restriction of loans to productive objects and there are circumstances under which unproductive loans are permissible and even advisable. What should be and generally is borne in mind is that precautions are taken by societies that the expenditure is inevitable and that it is not excessive in demand. The chief objects of the loans advanced are cultivation expenses purchase of live-stock, fodder,

seed, manure and agricultural implements, land improvement and sinking of wells, purchase of new lands and personal maintenance in times of scarcity in the case of agricultural societies, and for purchase of raw materials for industries for trade for house building and for food and other necessities of life in the case of non-agricultural societies. The terms of the loans are one year or less on those for current needs whether for agriculture or petty trade, and up to five years or so on loans for liquidation of old debts or for land improvement. The percentage of the loans repaid by the members in 1913-14 to the total amount of loans outstanding in 1912-13 and advanced in 1913-14 was 29.6 the average for the last four years being 31 per cent. An unsatisfactory feature of the co-operative system in some of the Provinces is the laxity and unpunctuality in the matter of repayment of loans by members and a general apathy in the matter on the part of societies. The amount of loans overdue from members at the end of the year 1913-14 stood at 13 per cent of the total outstandings due to societies. As co-operation is both financially and educationally a failure unless promptitude of payment is ensured no efforts are spared by organisers to educate societies in this respect. The Co-operative Societies Act grants to societies priority of claim against other creditors (except the State or the landlord) to enforce any outstanding demand due to the societies from members or past members upon the crops or other agricultural produce and upon the cattle, fodder or agricultural implements in cases where loans have been advanced for the purposes specified. But not content with this some co-operators have pleaded for special powers of recovery of loans under which overdue loans may be recovered as arrears of land revenue. Most local Governments have framed rules under the Act enabling the Registrar to refer disputed claims to arbitration and to enforce the award of the Registrar in the same manner as a decree of the Civil Court. No local Government is likely to grant nor the Government of India to sanction a special process under which claims against defaulting members may be recovered according to procedure allowed for the recovery of arrears of land revenue. For the existence of a special privilege of this character cannot but lead to laxity in the selection of members and carelessness in the granting of loans.

The Financing of Agricultural Societies.—As soon as the initial stage of the movement had passed a very urgent problem had to be faced. This was to finance the agricultural societies that were growing in all directions. And the problem was solved in different provinces according to the special conditions and the stages of development the movement had attained therein. In Madras a Central Bank which lent to Co-operative Societies in the Presidency, was started without Government aid as early as in 1907. This was followed by the starting of banks at district headquarters. In other Provinces District Banks were established making good the deficiency in the local capital of the societies within their districts and in some places Joint Stock Banks were persuaded to make advances direct to

agricultural societies or through the medium of District Central Banks. A large number of prosperous non-agricultural societies as stated above could afford to lend to agricultural societies. Government aid was also freely given and the advances under this head rose from Rs. 2,84,733 in 1908-07 to Rs. 9,84,063 in 1911-12 and Rs. 11,46,920 in 1913-14. With the progress of the movement however this aid was discontinued and the only Province which continued the practice was Bombay lending Rs. 2,57,430 in 1911-12. An important cause which led to the continuance of State aid in Bombay was the paucity of Central Banks in the Presidency and the refusal of the Commercial Banks though constantly approached to help agricultural societies. When owing to the unwillingness of the ordinary Banks to participate in the movement the Registrar found it extremely difficult to have even the small number of societies in the Presidency properly financed. Sir Vithaldas Thackersey and the Hon. Mr. Lakhubhai Samaldas submitted to Government a scheme to establish a Central Bank for the Presidency provided certain assistance was promised by Government. As a result of the negotiations that followed the Bombay Central Co-operative Bank was founded in October 1911 with a share capital of Rs. 7 lakhs and with power to issue debentures at 4 per cent up to three times the amount of the paid up share capital, the Government guaranteeing payment of interest on the debentures till their repayment. The Bank was authorised to lend only to registered co-operative societies in the Presidency with the previous sanction of the Registrar in the case of every individual loan. As an indirect result of the establishment of the Bombay Central Bank a number of District Banks have since been started in the Presidency.

The drawback of the Bombay and the Madras Central Banks is that neither is a co-operative Apex Bank in the true sense of the term as there are no District Central or Agricultural Societies that are members of or affiliated to it and therefore interested in its success. A Provincial Bank with three Central Banks affiliated to it is in existence in Upper Burma and this Bank finances primary societies either through the affiliated banks or through the guaranteeing or supervising unions composed of societies. An Apex Bank has recently been started in the Central Provinces to form an immediate link between the District Banks in the Province and the Commercial Banks in Allahabad and elsewhere. It has worked well and its success led to the establishment of a Provincial Bank with a similar constitution in Bihar and Orissa. A scheme has also been set afoot for having a Provincial Apex Bank in Bengal, whereas also in Bihar and Orissa the primary societies are at present financed by Central Banks at district or taluka headquarters. In the United Provinces primary societies are financed on the same system and there too a Provincial Apex Bank under which Central Banks will be federated is in process of formation. The Punjab has a Central Banking system and though sooner or later it too will have an Apex Bank, no definite proposal for the establishment of such Bank has yet matured.

The Working of Central Societies.—The following statement shows the number and the constitution of the Central Societies in the country up to the end of the year 1913-14 —

Provinces	Number of Societies	Number of Members	Total Working Capital	Reserve Fund	Net Profit during the year 1912-13	Local Rate of Interest on Loans to Societies
			Rs	Rs	Rs	Per cent
Madras	10	1,173	52,19,309	74,029	97,728	7 to 8
Bombay	6	1,082	18,13,516	6,239	29,824	8 1/2
Bengal	40	4,729	32,81,382	15,038	84,605	12 1/2
Bihar and Orissa	12	1,742	8,05,221	14,891	26,423	12 1/2
United Provinces	35	12,959	59,09,746	3,11,477	1,40,178	12 1/2
Punjab	14	2,479	41,55,052	38,154	99,464	8
Burma	90	2,748	26,67,114	29,524	62,412	9
Central Provinces	14	1,131	8,17,007	40,26	75,578	7 & 9
Assam	9	421	1,62,923	449	6,096	9
Coorg	5	10	7,50,324	7,371	21,025	10
Ajmer	11	395	3,49,515	2,111	9,643	7 1/2
Mysore	3	178	1,26,806	441	15	8 1/2
Baroda	1					7 & 8
TOTAL	329	34,710	2,90,37,180	5,60,790	6,18,357	

These figures include five Banks which may be treated as Provincial Banks one Central Bank Society in Burma 220 Central Banks and 108 guaranteeing and supervising Unions. The constitution of Central Banks is not uniform, but the existing Banks may be classified under three general heads — (1) Banks of which the membership is confined to individuals or where societies are admitted as members on exactly the same footing as individuals (2) Banks of which the membership is confined to Societies, and (3) Banks which include Societies and individuals as their members and secure to Societies separate representation on the Board of Directors. The number of Central Banks in the various Provinces (exclusive of Native States) falling under each of the three classes described above are approximately as shown below —

	(1)	(2)	(3)
Madras	4		3
Bombay		1	2
Bengal	3	6	24
Bihar & Orissa		1	11
United Provinces		14	41
Punjab	12	20	6
Burma			2
Central Provinces			28
Assam	2		4
Ajmer			5
Total	21	42	126

Functions of Central Banks.—The functions of Central Banks are to balance the funds of Societies and to supply capital. But their duties should not be limited to the provision of banking facilities only but should include the inspection and supervision of so-

cieties. Hence where the Central Banks are not formed on a capitalist basis they perform the functions of supervision and control of the Societies affiliated to them and in some Provinces they also organise new Societies and even take up the entire educational work now done by the Registrar. They may also be expected to supplement in lieu of a small fee to be paid by the societies the auditing work done by the Registrars who now find it very difficult owing to the increase in the number of societies to cope with this work with the limited staff at their disposal. Usually the Central Bank is only possible for the whole of a district as the personal necessary for its successful working would be difficult to secure in a smaller area. However in different parts of the country we notice the existence of Central Societies for talukas and occasionally for smaller tracts. The creation of such bodies has been facilitated by the amended Co-operative Societies Act which came into force in 1912. Previous to the passing of this Act, Central Societies were started unsystematically in various Provinces according to local ideas but their formation has been made uniform by the new Act insisting on a limited liability in the case of a society of which a member is a registered society. As stated above an important class of institutions included under the statistics of Central Societies are unions which may be described as federations of societies which are maintained for supervision, either combined or not with the assessment or guarantee of loans to primary societies and which do undertake banking business. There are 163 such Unions in the country Burma having 90 Bengal 7 Madras 4 and Assam 2.

It may be mentioned that in most of the Provinces the work of organising and looking after the societies is done by the Registrar with the help of assistants and a few honorary non-official workers. Where the Central Bank

system has properly developed, the Directors of the Central Bank either themselves or through a paid agency organise societies and as stated above supervise their working. The number of honorary workers is steadily increasing and in some Presidencies there is a band of specially appointed Honorary Organisers who regularly assist the Registrars. There is however scope for Organisation of Societies on the lines of similar institutions in England and Ireland, and if the District Banks and Unions are affiliated to a Co-operative Provincial Apex Bank, it may be possible to have an Organisation Department of the Bank with branches in the districts.

Store Societies.—After the passing of the new Co-operative Societies Act the application of co-operation to purposes other than credit was greatly extended, but as yet there has been no general demand for productive and distributive co-operative societies as is noticeable in England and elsewhere. At the end of the year 1913-14, there were very few store societies in the country. The Madras Presidency claiming 10 of these with a membership of 4,464 and a working capital of Rs. 2,40,280. An important industry which flourished in India before the introduction of machinery was the Handloom Weaving Industry and efforts have been made to revive it by the formation of productive co-operative societies of handloom weavers. The weavers societies are not merely credit societies but undertake the purchase of good yarn for members and in some cases have

store branches to sell the cloth produced by them. They have also been instrumental prominently in Bombay the United Provinces and the Central Provinces, introducing improved looms and methods amongst the co-operative weaving classes. The number of these societies in Bombay is 20, in Bengal 3, in Madras 1, in the United Provinces 2, (excluding a number of weavers credit societies) 4, in the Central Provinces 51 in Burma 4, and in Assam 4.

The other Productive Societies are those for gaoles or milkmen dyers, basket and brass workers in the Central Provinces and Chammars and 'dhors' in Bombay. There are also building societies in Madras a spinning society in Bengal, and a Sugar Factory worked on co-operative lines in Benares. A Housing Society has been started in Bombay and a Housing Association has been founded to encourage the formation of more such societies. There are a few dairy societies the most well known of these being those at Lucknow and Benares. Burma possesses a novel type of societies for the sale of paddy having 83 such societies. It is also a pioneer in the matter of co-operative insurance and has 30 Cattle Insurance Societies with a membership of 1,083. Nine Cattle Insurance Societies have also been started in Coorg and 1 in the United Provinces. The total number of non-credit societies whether agricultural or non-agricultural is only 249. The following table exhibits the progress of other forms of co-operation in the different parts of the country.

Type of Society	Madras	Bombay	Bengal	Bihar and Orissa	United Provinces	Punjab	Burma	Central Provinces	Assam	Coorg	Ajmer	Total
Purchase or Purchase and sale	10	27		2	5	19						6
Production	1	11										11
Production & Sale			1		1	4		1				4
Insurance		4			10		61	1				78
Others					1		64			9		75
	5	2	1									10
	6											6
GRAND TOTAL	22	45	4	2	17	23	122	5		9		249

Agricultural Co-operation.—Agricultural societies have until recently been engaged only in supplying cheap credit to their members but there are various other fields of work to which they may extend their activities. Grain Banks may be started with advantage receiving deposits in kind and allowing these to accumulate to be sold at profitable rates or distributed to the members in times of scarcity. Such Banks have been started in Bombay and Madras. Societies on a similar principle

for the storage of fodder may assist in solving what is likely to become in the near future an important problem in rural economy. Another direction in which the co-operative principle is being adopted is the starting of societies for purchase of and distribution among members of good undiluted seed. A number of small seed societies have been organized in the Bombay Presidency and in the Central Provinces. Societies for the co-operative purchase and sale of manure will also prove

a great boon and a few such stores have been established in Madras, Bengal and Bombay. Government has of late made attempts to bring the co-operative movement in close touch with the Agricultural Department. Co-operation has already been successful to a considerable extent in redeeming the chronic indebtedness of the agriculturist but if the improvement in his economic condition is to be permanent it is essential that he should be prevailed upon to adopt improved methods of production. The Agricultural Department does undertake propagandist work with this object but its efforts have not proved as successful as they ought to be. A Co-operative Society provides just the effective agency to reach the agriculturists and in many places societies have been the means of bringing home to the agriculturist the need for improved methods by being made the centre for the propagandist activities of the Agricultural Department and District Agricultural Associations. As a result a few societies have been enterprising enough to purchase modern agricultural implements recommended by the Department and to use the proper manures and the certified varieties of seeds. Whenever

agriculture and co-operation have experienced the assistance which each can derive from association with the other they are fast developing a truly organic connection. If the reorganisation of Indian agriculture grows apace with the spread of co-operation there is no doubt that rural India will soon present a happier outlook than it does at present.

With the establishment of factories in India an important labouring class has grown up in big industrial towns and this class is as deeply indebted and as badly remunerated as the agriculturists. Co-operation if introduced among people of this class would open a new life to them besides being the means of their economic regeneration. No serious efforts have hitherto been made in this direction as urban co-operation has hitherto been confined more or less to middle class people. A few mill hands and working men's societies have been organised in Bombay but these should be multiplied a hundredfold among all classes of factory labourers so that if successful, they may become the forerunners of a healthy Trade Unionism in India.

RECENT GOVERNMENT ACTION

In July 1914 the Government of India issued a lengthy Resolution on co-operation in India, surveying its progress in the country during the last ten years. Though the Resolution is optimistic in tone it criticises in partially the drawbacks of this new movement in India. It particularly emphasises the urgency of a proper financial organisation of societies and states that the responsibilities introduced by the addition to the co-operative organization of central and provincial banks are of a serious character. To supervise the relations of such institutions with the money market on the one hand and with their constituent societies on the other is a task which requires a considerable degree of technical skill and the administration of the whole co-operative movement in the stages above that of the individual society is a matter which must in the immediate future engage the serious attention of Government and of the people.

In October the Imperial Government appointed a strong Committee under Sir Edward Maclagan to examine whether the movement especially in its higher stages and in its financial aspect was progressing on sound lines and to suggest any measure of improvement which seemed to be required. The enquiry was to be directed primarily to an examination of such matters as the constitution and working of Central and Provincial Banks, the financial connection between the various parts of the co-operative organization, the audit inspection and management of all classes of societies, and the utilization of the reserve funds. The scope of the enquiry was however, in no way rigidly limited by the Government of India for the Committee could at its discretion consider and make recommendations regarding any important aspect of the co-operative movement. The Committee travelled for four months visiting various centres in the larger provinces of India and examined during this tour 98 witnesses

and inspected 136 societies of various kinds. In its report which was issued in September 1915 the Committee stated that it had not confined its enquiries to the subjects referred to it for it had to recognise that the financial system of the higher stages of the co-operative system was largely based on the soundness of the foundation. At the outset it may be remarked that in view of the present preponderance in the number of agricultural credit societies and the smallness of the general principles which guide all classes of co-operation the Report deals mainly with the institutions established for providing agricultural credit. In treating of primary societies the report points out the extreme care necessary in the formation of new societies and urges the extreme importance from the standpoint of efficiency and financial stability of systematically inculcating the main principles of co-operation. Stress is laid on the encouragement of thrift and the Committee thinks that every effort should be made to increase the amount of local deposits in societies. It is recommended that the bye laws of societies should be so framed as to allow the Annual General Meeting to assess and fix every year the total borrowing power of the Committee and the normal maximum borrowing power of each member. The Committee advocates the taking of surties in all cases and the rigorous extraction of the surties, liability when necessary and deprecates an extensive use of mortgages. While advocating the full use of the existing law in respect of recoveries from members, it has refused to support the claim put forward for a summary procedure in the execution of decrees and strongly deprecates the use of Government agency for the recovery of debts due to societies. In the opinion of the Committee it is necessary for all co-operative institutions to build up a Reserve Fund in the sense of surplus assets and to make every effort to accumulate as

owned capital to supply their working needs and to meet the claims of creditors on liquidation. Stress is laid on the necessity in the case of primary societies which take deposits of providing for themselves either by their own investments or by arrangements with the financing institutions an adequate fund resource. After satisfying the requirements in this direction, where necessary, primary societies should be left to utilize their surplus assets in their own business. The function of supervising the primary societies devolves according to the Committee on the societies and can best be carried out by a staff paid for by the societies and responsible to them as also to their financing institution. These duties if it is added, can be performed most in conformity with true co-operative methods by the formation of guaranteeing Unions of societies on what is known as the Burns model. These Unions form a link between the financing agencies and the societies and bring the societies together most effectively for the purpose of mutual supervision, assessment of credit and recovery of loans. In the view of the Committee, a guaranteeing Union of some kind is advisable where the financing agency is a Central Bank, and essential in cases where a Bank dealing with a whole province attempts to deal with societies without the intervention of a Central Bank. Central Banks are at present of three classes according as their shareholders are all individuals, all societies, or some individuals and some societies and while advocating the disappearance of the first class and the ultimate adoption of the second the Committee believes that for the present the third or mixed form of constitution offers the best advantage. To balance the economies and deficiencies in Central Banks and to supply them with funds it advocates the foundation at an early date of a co-operative institution at the head of each Province which does not now possess one. These institutions too should in the Committee's opinion have a mixed constitution in which individuals and co-operative Banks should both be represented. In view of the peculiar nature of co-operative finance the Committee recommends that the period of deposits accepted by Co-operative Institutions should ordinarily be as long as possible but that only in very special cases where Central Banks are in a position to secure debentures on immovable property should capital be raised by debentures. The necessity for building up an owned capital is emphasized as also the special necessity for central financing institutions to equilibrate their finances. The Committee comments on the absence of facilities for discounting co-operative paper and on the urgency under the circumstances, of Central Banks maintaining fund resources sufficient to meet half the deposits due for repayment within the next twelve months a standard of one-third being sufficient in the case of Provincial Banks. As in the case of primary societies, central institutions too may after satisfying the requirements in this respect be left to utilize their surplus assets in their own business. The Committee recognizes that its recommendations regarding the fund resource will entail a disarrangement of existing financial conditions and will in

many cases involve a considerable raising of existing margins between the borrowing and lending rates. The Committee insists on the vital importance of proper audit and supervision. In the case of Central and Provincial Banks the audit of accounts should be done on payment either by professional or Government agency the Registrar being responsible for the inspection and general supervision of these societies. For primary societies the Committee thinks that the auditing staff may be divided into two sections (a) a staff maintained by Government for super audit and (b) a staff maintained by co-operative institutions for original audit. The only prominent administrative concession recommended by the Committee is the introduction of a special procedure for recovery in liquidation and another concession which may be much availed of if adopted is the suggestion that where loans under the Agriculturists Loans or the Land Improvement Loans Act are being given by Government on a large scale it should be open to societies to receive such loans for distribution to their members. The Committee recognizes that with the growth of co-operation a new factor in district administration has come into being and therefore desires that the District Officer be entitled to attend all meetings of Central Banks in his jurisdiction though it deprecates the delegation to the District Officer of duties assigned under the Act to the Registrar or any general arrangement for making him an ex officio Chairman of the Central Bank at District Headquarters. The Committee recommends that two controlling officers should be employed in each province and that there should be a Registrar or Joint Registrar for every 1,000 or fraction of 1,000 societies registered. The Registrar should be a whole time officer and his post should be included as a Collector's post in the cadre of the Province the special qualification for the post being that he should be well versed in co-operative literature relating to all countries and should if possible have gained some personal experience of the subject in Europe. The Committee has examined a proposal for the co-ordination of certain economic departments including those of Co-operation, Agriculture and Industries under a single officer of high standing in each Province and has recommended that a move be made in this direction as opportunity offers. The need for closer control by Government over the objects for which the co-operative organisation is utilized and over the financial arrangements of the movement is emphasized and to meet the latter it is suggested that an officer with co-operative experience be appointed to act as Adviser to the local and Supreme Government. The Committee has finally examined the effect on the co-operative movement of recent famines of banking crises and of the present war and states that the Government has hitherto given direct financial aid to co-operation in three ways: only (1) by the grant of initial advances to new societies (2) by guaranteeing the interest on the debentures of the Bombay Central Bank and (3) by special advances in two Provinces to meet difficulties anticipated in connection with the war. The Committee expresses its concurrence with the present policy of Government so far as it represents a rejection of the system

of money doses and of undue concessions, but points out that in order to make the movement self-sustaining it will be necessary to provide some means of redempting the pro-notes of societies either through the Pro-currency Banks or by means of a State Co-operative Bank and recommend that a careful examination be made of this question. The recommendation of the Committee are under consideration by Government.

Defective Education—It is the experience of those who have to deal with the organisation and management of rural societies that the sad state of education among the agricultural population is not only a real hindrance to the development of co-operation but seriously endangers its very existence. There are villages where no schools exist and where there is hardly one individual who can read and write tolerably well. In most villages a few literate people can be found and it is these that form the nuclei of co-operative societies. Their ignorance in other matters is often so abysmal that it is hardly possible to instil into their minds even elementary notions of co-operation. Happily there are different kinds of villages where about 30 to 40 per cent. of the population are able to read and write and where one finds a dozen intelligent men who can understand the elements of co-operation. In a large number of societies as has been pointed out previously the secretaries who are the real managers are not *bona fide* members. This it may be urged is contrary to a fundamental principle of co-operation that there should be internal management of the business but it can scarcely be helped in a country where there are only a few among the total village population able to keep their accounts much less to undertake the management of a society. It is true that co-operation provides a higher type of education but when the ground work itself is lacking it is impossible to build up the super-structure.

Social Reform—Co-operation has in some places stimulated the desire for education and members of rural societies have been known even at advanced age to receive the elements of education to enable them to put their signatures on the society's papers and to

take a lively interest in the internal work of their societies. There are a few cases where a society has set its face against drunkenness, expelled members notorious for their intemperate habits and has in other ways worked for a better morality by insisting on a high standard of life. Societies have occasionally condemned excessive and even heavy expenditure on marriages and have thus indirectly trained members to the habit of thrift. Liquidation of old debts again has been rendered possible to a great extent and many an agriculturist who was formerly in a state of chronic indebtedness has been relieved of all his debts and freed from the necessity of incurring new ones. Credit has been much cheapened and it is now possible for the agriculturist to borrow at 8 to 18 per cent. what he could not borrow at less than 20 to 75 per cent. formerly. It has been calculated that in interest alone the agriculturists of India, by taking loans from co-operative credit societies instead of from the village money lenders are even now saving themselves from an unnecessary burden of at least 20 lakhs of rupees. The village rates of interest have naturally gone down considerably and the Sowkar is in most places not the terror and the force that he was. Business habits have been inculcated with the beneficial result that the agriculturist has learnt to conduct his own work more efficiently. Thrift has been encouraged and the value of savings better appreciated. Partiality in the management of societies has brought home to the members the important lessons of self-help and self-reliance but the most important achievement of co-operation has been the instilling of a sense of communal life—a feeling of all for each and each for all amongst the members of a co-operative body. If these signs become as common as they are now rare and if, over and above the economic benefits achieved by it co-operation succeeds in its true aim—the building up of the character of the people and the promotion of their welfare by the inculcation of the ideas of thrift and the principles of self-help and above all by showing the wisdom of mutual help and brotherliness amongst the neighbours a resurrection of rural life conducive to a better national life will not be far off.

The Cocaine Traffic.

The form of cocaine chiefly used in India is Cocaine Hydrochloride. This salt forms light shining crystals with a bitterish taste and is soluble in half its weight of water. The alkaloid cocaine—of which this is a salt—is obtained from the dried leaves of the *Erythroxylon Coca*, which grows in Bolivia, Peru, Java, Brazil and other parts of South America. The leaves are most active when freshly dried and are much used by the Natives as a stimulant. Tea made from them has a taste similar to green tea and is said to be very effectual in keeping people awake. In India the Coca plant seems never to have been cultivated on a commercial scale. It has been grown experimentally in the tea districts of Ceylon, Bengal and Southern India and has been found to produce a good quality and quantity of cocaine. As the plant has not been seriously cultivated and as there is no possibility for the present of the drug being manufactured in India no restrictions have as yet been placed on its cultivation.

Spread of the habit.—The cocaine traffic in India which seems to be rearing alarming proportions in spite of legislation and strict preventive measures is of comparatively recent growth though it is impossible to estimate how widespread it was in 1903 when the Bombay High Court for the first time decided that cocaine was a drug included within the definition of an intoxicating drug in the Bombay Abkari Act. Since that date the illegal sale of cocaine in India has largely increased and the various provincial Excise Reports bear witness to the spread of the "Cocaine habit." The consumers of the drug, which is notoriously harmful are to be found in all classes of society and in Burma even school children are reported to be its victims but in India as in Paris the drug is mostly used by prostitutes or by men as an aphrodisiac. The habit has spread chiefly to those classes which are prohibited by religion or caste rules from partaking of liquor and the well known Indian intoxicating drugs.

Imports from Europe.—Cocaine and its allied drugs are not manufactured in India, but are imported from Germany, France, England and Italy. Most of the drug which is smuggled into India, comes from Germany and bears the mark of the well known house of E. Merck, Darmstadt. This firm issues cocaine in flat packets of various sizes ranging from 1 to 8 ounces which are easily packed away with other articles and greatly favour the methods of smugglers. Owing to its strength and purity cocaine eaters prefer this brand to any other in the market. Restrictions on export from Europe have been under consideration for some time but as yet no international scheme devised to that end has been agreed upon.

Smuggling.—So far as the cases already detected show the persons who smuggle the drug by sea from Europe and places outside India, into India are chiefly sailors, stewards, firemen and sometimes engineers and officers of the Austrian Lloyd and Florio Rubattino & S. Companies. The ports through which cocaine enters India are Bombay, Karachi, Calcutta, Madras, Marseilles and Pondicherry. The main inland distributing centres are Delhi,

Lucknow, Meerut, Lahore, Multan, Surat and Ahmedabad. Delhi especially is notorious for the cocaine trade. Great ingenuity is employed in smuggling cocaine through the Custom houses. It is packed in parcels of newspapers, books, toys and piece-goods and in trunks which have secret compartments. The retail trade in the towns is very cunningly organized and controlled. In addition to the actual retailers there is a whole army of watchmen and patrols whose duty is to shadow the Excise and Police Officials and give the alarm when a raid is contemplated. In spite of these precautions many big seizures have been made in Bombay, Calcutta, Karachi and elsewhere. In Bombay all Austrian and German ships are watched day and night by special officers during the whole time the vessels are in port. This has resulted in smaller quantities being landed. The total quantity of cocaine seized in the Bombay Presidency during 1913-14 consequently fell to about 850 ounces. There was a further reduction in 1914-15 as only 633 ounces were seized and for this the war is responsible.

Price.—The cocaine seized is either given to Hospitals in India or destroyed. It is no longer possible to buy cocaine from any betel nut seller as it was ten years ago but scores of cases in the Police Courts show that the retail trade thrives though to a diminished extent in Bombay. High profits ensure the continuance of the trade. At present the English quotation is 12 shillings per ounce and the price as sold by licensed chemists in India is about Rs. 17 per ounce. Owing to the war and the consequent stoppage of illicit importations from Austria and Germany it is not possible to buy the smuggled drug from the wholesale dealers for less than Rs. 80 to 85 per ounce and when sold by the grain the price realized varies from Rs. 400 to Rs. 800 per ounce. These profits are further enhanced by adulteration with phenacetin and inferior quinine.

The law in regard to Cocaine.—This varies in different provinces. A summary of the law in Bombay is as follows: No cocaine can be imported except by a licensed dealer and importation by means of the post is entirely prohibited. The sale, possession, transport and export of cocaine are prohibited except under a license or permit from the Collector of the District. A duly qualified and licensed Medical practitioner is allowed to transport or remove 20 grains in the exercise of his profession and so far as 6 grains may be possessed by any person if covered by a *bona fide* prescription from a duly qualified Medical practitioner. The maximum punishment for illegal sale, possession, transport etc. under Act V of 1878 as amended by Act XII of 1912 is as follows: Imprisonment for at term which may extend to one year or fine which may extend to Rs. 2,000 or both and on any subsequent conviction imprisonment for a term which may extend to 2 years or fine which may extend to Rs. 4,000 or both. In Bengal the maximum imprisonment awardable at present for importation or possession of cocaine is 3 months imprisonment under the Excise Act with or without a fine up to Rs. 1,000.

INDIAN TOBACCO

The tobacco plant was introduced into India by the Portuguese about the year 1605. As in other parts of the world, it passed through a period of persecution but its ultimate distribution over India is one of the numerous examples of the avidity with which advantageous new crops or appliances are adopted by the Indian agriculturist. Five or six species of *Nicotiana* are cultivated but only two are found in India, namely *N. Tabacum* and *N. rustica*. The former is a native of South or Central America and is the common tobacco of India. About the year 1828 experiments were conducted by the East India Company towards improving the quality of leaf and perfecting the native methods of curing and manufacturing tobacco. These were often repeated, and gradually the industry became identified with three great centres, namely (1) Eastern and Northern Bengal (more especially the District of Rangpur) (2) Madras Trichinopoly Dindigul, Coconada and Calicut in Southern India and (3) Rangoon and Moulmein in Burma. Bengal is the chief tobacco growing Province but little or no tobacco is manufactured there. The chief factories are near Dindigul in the Madras Presidency though owing to the imposition of heavy import duties on the foreign leaf used as a cigar wrapper some cigar factories have been moved to the French territory of Pondicherry.

The question of improving the quality of Indian tobacco has received the attention of the Botanical section of the Agricultural Research Institute Pusa and three Memoirs have been published recording the results of investigations in that direction. The immediate problem at Pusa is the production of a

good cigarette tobacco. Many attempts have been made in the past to introduce into India the best varieties of cigarette tobacco from America but the results have been disappointing. It is now hoped to build up by hybridization new kinds of tobacco suited to Indian conditions of growth, which possess in addition the qualities necessary to obtain a better price.

Mr James McKenna in his recent report on "Agriculture in India" writes:—

"The ordinary Burman and Indian cigar has an increasing popularity—about 1½ million pounds are exported—and exports increase. It is a cheap and a good cigar, but it is capable of improvement principally by a better outer leaf or wrapper of finer tobacco. We should therefore aim at increasing the culture of genuine Indian cigars improved as they can be without loss of their individuality by the selection of leaf and at decreasing the imports of foreign cigarettes by producing tobacco suitable for this purpose. The present coarse varieties seem to meet the local taste and that of our main export markets which are Asia and its dependencies and the Far East. There is however no reason why these local varieties should not be brought to their highest perfection by selection or why improvements should not be possible in curing. The most pressing commercial problem, however is to oust the foreign cigarette. This quest on has been taken in hand in Bengal and Bombay where efforts are being made to establish exotica. These have met with only qualified success. We can only say, so far that experiments continue but whether they will prove commercially successful remains to be proved and indeed seems somewhat doubtful."

The area under tobacco in British India was 1,092,000 acres in 1912-13 as compared with 965,000 acres in 1911-12. The following statement (prepared in the office of the Director of Statistics India) shows the imports and exports of tobacco by sea from and to foreign countries during the last three years:—

	1912-1	1913-14	1914-15
IMPORTS	lbs	lbs	lbs
Tobacco—Unmanufactured	286,601	241,633	107,839
Manufactured—			
Cigars	2,800	78,908	61,407
Cigarettes	1,400,733	1,591,138	1,459,800
Othersorts	541,744	308,011	550,909
* Total	2,362,118	2,437,660	2,219,516
EXPORTS			
Tobacco—Unmanufactured	19,581,947	27,817,318	16,490,045
Manufactured—			
Cigars	1,749,975	1,835,635	1,733,959
Cigarettes	14,399	19,055	38,184
Othersorts	363,286	361,914	419,557
Total	21,698,607	30,027,326	18,681,525

The Women's Medical Service for India.

This Service which was recently inaugurated under the auspices of the late Lady Harcourt, is included in the National Association for supplying female medical aid to the Women of India, generally known as the Countess of the Dufferin's Fund and is administered by the Central Committee of that Fund. The Government of India has so far allotted the sum of £10,000 per annum towards its maintenance. The present sanctioned cadre is twenty-five first class medical women of which number five is for the purpose of forming a leave reserve. Recruitment of the service is made (a) in India by a medical sub-committee of the Central Committee which includes the Director General, Indian Medical Service, the Honorary Secretary to the Central Committee and a first-class medical woman. (b) in England, by a sub-committee consisting of a medical man and two medical women conversant with conditions in India, to be nominated by the Home Committee of the Countess of Dufferin's Fund. These sub-committees perform the duties of a medical board examining candidates for physical fitness, and for return to duty after invaliding.

The Central Committee determines what proportions of the members of the Service is to be recruited in England and in India respectively. In the original constitution of the Service, duly qualified medical women who are in the service of, or who have rendered approved service to the Countess of Dufferin's Fund, are to have the first claim to appointment and thereafter special consideration is to be paid to the claims of candidates who have qualified in local institutions and of those who are natives of India.

Qualifications.—The qualifications are that the candidate must be (a) a British Subject resident in the United Kingdom or in a British Colony or in British India, or a person resident in any territory of any Native Prince or Chief under the suzerainty of His Majesty exercised through the Governor-General of India or through any Governor or other officer subordinate to the Governor-General of India. (b) Must be between the ages of twenty-four and thirty at entry. (c) She must be a first-class Medical Woman i.e. she must possess a medical qualification registrable in the United Kingdom under the Medical Act, or an Indian or Colonial qualification other than L.M.S. or Licentiate of a Medical College in India registrable in the United Kingdom under that Act but this condition does not apply at the original constitution of the Service to medical women in charge of hospitals who in the opinion of the Central Committee are of proved experience and ability. (d) The candidate must produce a certificate of health and character. But the Central Committee reserves the power to promote to the service ladies not possessing the above qualifications, but who have shown marked capacity. Members of the Service are required to engage for duty anywhere in India or Burma. Those recruited in England serve for six months, and those recruited in India for three months, in a General Hospital of the Province to which they

are deputed. After this period of probation has been satisfactorily passed their appointments are confirmed. The services of Members may be lent to Local or Municipal bodies, or to special institutions, which may be responsible for whole or part of the pay.

Pay.—The rates of pay are as follows—During probation Rs. 350 per month thereafter Rs. 400 up to the end of the 4th year Rs. 450 from the 5th to the 7th year Rs. 500 from the 8th to the 10th year and Rs. 550 after the 10th year. But no member can be confirmed in the 400 rupee grade unless she has passed an examination in such vernacular as the Provincial Committee shall prescribe, within one year of her appointment. In addition suitable quarters are provided free of rent or a house rent allowance to be determined by the Provincial Committee may be granted in lieu of it.

Members of the Service are permitted to engage in private practice provided it does not interfere with their official duties and the Provincial Committee has the power to determine whether such duties are thus interfered with. Except in very special cases retirement is compulsory at the age of forty-eight. A member whose appointment is not confirmed or who is dismissed, is granted an allowance sufficient to pay her passage to England.

Leave Rules.—(a) Casual Leave, which is occasional leave on full pay for a few days and is not supposed to interrupt duty. (b) Privilege Leave, which is leave on full pay and is meant to provide a month's holiday in the year. If it cannot be granted during the year it can be accumulated up to a limit of three months. (c) Furlough at the rate of two months for each year of duty the latter including privilege leave and casual leave. First furlough is not granted till after four years of duty and more than eight months furlough is not granted at one time. Study leave may also be granted not exceeding three months at a time and up to nine months during the whole service. (d) Sick leave, up to a maximum of two years. (e) Extraordinary leave at any time at the discretion of the Central Committee. When on furlough or sick leave the allowances are half the average monthly pay of the six months' presence on duty immediately preceding the taking of the leave. There are no allowances during extraordinary leave. A Lady appointed in England receives a sum of £70 to cover her passage and incidental expenses. There are also allowances to cover the cost of journeys by rail and road.

There is also to be a Provident Fund, each member contributing monthly thereto five per cent of her salary the Association contributing an equal amount and each subscriber's account being granted interest on the amount standing to credit at the rate of 4 per cent. per annum, or at such rate as the Central Committee can invest without risk to the funds of the Association.

The Member loses her contributions if she resigns (except on account of ill health) before completing five years' service or in the event

of disapproval. On retirement after approved service the sum which has accumulated to the credit of the subscriber is handed over to her.

DEFECTS IN THE SCHEME.—The above are the regulations as last published. It is probable that they will have to be altered in details as the authorities who have drawn up the scheme do not appear to have taken into consideration the great increase in the cost of living which of late years has pressed heavily on Europeans in India with limited salaries. The initial salary is inadequate for English ladies in India, and those who enter the service without private means may find themselves unable to resign the service should they find it uncommensal, through not having been able to save sufficient to pay the expensive journey by ship to Europe the cost of which (second

class) is equivalent to a little more than a month's pay. The same low rate of pay may also prevent the members taking the furlough due to them, a matter of great importance seeing that the Indian climate is especially trying to Englishwomen. The furlough rules compare unfavourably with those granted to Englishmen in the corresponding Indian Medical Service, who are entitled to calculate one-fourth of their active service for furlough, whereas the women are only to be granted one-sixth. Moreover the men can accumulate furlough up to two years, the women only accumulating eight months. It is also to be noted that there is only a lump-sum on retirement nothing in the shape of a pension. It is also to be pointed out that private practice for the English doctor in India, whether man or woman, is always precarious and often unobtainable.

THE COUNTESS OF DUFFERIN'S FUND

The National Association for supplying female medical aid to the women of India at once one of the most efficient as it is among the most useful and benevolent institutions in India is the outcome of the work of the Countess of Dufferin and Ava during the time of her husband's Viceroyalty. The late Queen Victoria drew the attention of the Countess on the departure of the latter for India, to the question of supplying medical aid to women in this country and asked her to take a practical interest in the subject. As the result of her enquiries she found that, though certain great efforts were being made in a few places to provide female attendance in hospitals, training schools and dispensaries for women and although missionary effort had done much, and had indeed for many years been sending out pioneers into the field, yet taking India as a whole its women owing to the purdah system, were undoubtedly without that medical aid which European women were accustomed to consider as absolutely necessary. In the Countess's own words written in 1888 after the movement had been started. I found that even in cases where nature left to herself would be the best doctor the ignorant practice of the so-called midwife led to infinite mischief which might often be characterised as abominably cruel. It seemed to me then that if only the people of India could be made to realise that their women have to bear more than their necessary share of human suffering and that it rests with the men of this country and with the women of other nationalities to relieve them of that unnecessary burden then surely the men would put their shoulders to the wheel and would determine that wives, mothers and sisters and daughters dependent upon them should, in times of sickness and pain, have every relief that human skill and tender nursing could afford them. I thought that if an association could be formed which should set before itself this one single object, to bring medical knowledge and medical relief to the women of India, and which should carefully avoid compromising the simplicity of its aim by keeping clear of all controversial subjects and by working in a strictly unsectarian spirit, then it might become national and

ought to command the support and sympathy of every one in the country who has women dependent upon him.

Initiation of the Scheme.—Lady Dufferin's plans were warmly received by the public all over India. The scheme was drawn out and published in the different dialects. The association was named 'The National Association for Supplying Female Medical Aid to the Women of India' and the money for its support, as it was received, was credited to the Countess of Dufferin's Fund. The affairs of the Association were managed by a central committee of which the Countess of Dufferin during her stay in India was President. Branch Associations each independent for financial and administrative purposes but linked with the central committee were formed in most parts of the country and the work may be said to have started from August 1885. The objects of the Association are thus set forth in its publications.—I Medical tuition including the teaching and training in India of women as doctors, hospital assistants, nurses, and midwives. II Medical relief, including the establishing under female superintendence of dispensaries and hospitals for the treatment of women and children, the opening of female wards under women superintendents in the existing hospitals and dispensaries, the provision of female medical officers and assistants for existing female wards and the founding of hospitals for women where specially funds or endowments are forthcoming. III The supply of trained female nurses and midwives for women and nurses for children in hospitals and private houses.

Within four years from its inception there were in existence twelve hospitals for women and fifteen dispensaries most of which were officered by women, and all more or less closely connected with the Association. From the subscriptions collected there was enough to set aside a substantial sum as an endowment fund and also six medical twelve nursing, and two hospital assistant scholarships had been provided for.

Growth of Scheme.—The first regular train

ing school in India for the instruction of native people in medical and surgical nursing, and in midwifery was established in 1886 by the Bombay Branch of the Association in connection with the Cama Hospital in Bombay. This is a civil institution under Government management, and is solely for women and children of all castes and denominations. In connection therewith is the Alibless Obstetrical Hospital and the Jaffer Sulaiman dispensary for women and children. The present physician-in-charge is Miss A. M. Benson M.D. Lond.

By the end of 1914 there were thirteen Provincial Branches working under the central committee and attached in some manner or affiliated to the provincial branches, there were about one hundred and forty Local and District Associations or Committees engaged in furthering the work of the Association.

There were one hundred and fifty-eight hospitals, wards, or dispensaries of various kinds for the medical relief of close on one and a quarter million women and children, and the value of the institutions engaged in the work of the Association was estimated at over 56 lakhs of rupees.

Annual Report.—The Report of the Association is published annually, and can be obtained either from the Superintendent of Government Printing Calcutta, or from the leading booksellers the price being one rupee. The map of India published therewith shows the centres worked by the Duffern Fund uniformly scattered over the Indian Peninsula, and illustrates how the Association has taken root in the country. The Honorary Secretary is Lt.-Col. Sir James Roberts, I.M.S. Surgeon to the Viceroy.

NURSING

Whilst India cannot show the complete chain of efficiently nursed hospitals which exists in England there has been a great development of skilled nursing of recent years. This activity is principally centred in the Bengal, Madras, and Bombay Presidencies where the chief hospitals in the Presidency towns are well nursed, and where large private staffs are maintained, available to the general public on payment of a prescribed scale of fees. These hospitals also act as training institutions, and turn out a yearly supply of fully trained nurses both to meet their own demands and those of outside institutions and private agencies. In this way the supply of trained nurses, English Anglo-Indian and Indian is being steadily increased. In Bombay the organization has gone a step farther through the establishment of the Bombay Presidency Nursing Association of St. George's Hospital Bombay. This is composed of representatives of the various Nursing Associations in charge of individual hospitals and works under the Government. The principle on which the relations of this Association with the Local Associations is governed is that there shall be central examination and control combined with complete individual autonomy in administration.

Nursing Bodies.—The Honorary Secretary of the Calcutta Nursing Association is Mr. R. A. B. Reynolds, the Presidency General Hospital. The address of the Mayo Hospital Nursing Association is in Strand Road. In Madras there is the General Hospital with a staff of 62 nurses, the Government Maternity Hospital, the Coote and Coote Hospital at KEM, the Royappa Hospital and the Ophthalmic Hospital.

Bombay Presidency.—The Bombay Presidency was amongst the first in India to realize the value of nursing in connection with hospital work. The first steps were taken on the initiative of Mr. L. R. W. Forrest at St. George's Hospital Bombay where a regular nursing cadre for the hospital was established alongside with a small staff of nurses for private cases. This was followed by a similar movement at the J. J. and Allied Hospitals and after wards spread to other hospitals in the Presidency.

Ultimately the Government laid down a definite principle with regard to the financial aid which they would give to such institutions agreeing to contribute a sum equal to that raised from private sources. Afterwards, as the work grew it was decided by Government that each nursing association attached to a hospital should have a definite constitution and consequently these bodies have all been registered as Associations under Act 21 of 1900. By degrees substantial endowments have been built up although the Associations are still largely dependent upon annual subscriptions towards the maintenance of their work. The chief of these Associations are—

St. George's Hospital Nursing Association
Secretary D. W. Wilson, St. George's
Hospital Bombay.

J. J. Hospital Nursing Association
Secretary A. G. Gray Jamsetji Jijibhai
Hospital Bombay.

Gokaldas Tejpal Hospital Nursing Association
Secretary Mahantullah Currim
bhoy.

Cama Hospital Nursing Association Ad-
dress—Cama Hospital Bombay.

Sassoon Hospital Nursing Association
Address—Sassoon Hospital Poona.

Ahmedabad and L. L. Memorial Association
Address—Civil Surgeon Ahmedabad.

After further experience it was felt that it is undesirable to have a considerable number of detached and independent nursing associations training and certifying nurses without any common standard of entrance examination or certification. It was therefore decided to establish the Bombay Presidency Nursing Association which came into existence in the year 1910. This is an Association formed partly of representatives of all affiliated associations and partly of direct representatives of Government, the Surgeon General with the Government of Bombay always being the chairman. It is financed partly from the product of endowments and partly from contributions from the Government of India. If subsequently further funds are needed they are to be provided by contributions from the affiliated Associations.

The principle on which the Bombay Provisional Nursing Association works is a central system of examination, certification, registration and control. It is now the only nursing, examining, registering and certifying body in the Bombay Presidency. At the same time the local associations retain entire charge of their local funds excepting Provident funds which have been transferred to the Central fund and also entire control of the nurses when they are in their employment. In a sentence, the principle is central examination and certification and local control. By degrees it is hoped to be able to establish the principle that none but nurses registered under or certified by this association shall be employed in any Government institution.

The Association commenced its operations on the 1st April 1911. The institutions recognized under the by-laws for the training of nurses at present are—St George's Hospital, J. J. Hospital, Cama and Allbless Hospitals in Bombay, the Civil Hospital, Karachi, the H and P Civil Hospital, Ahmedabad and the Sassoon Hospital in Poona, and the following for the training of midwives—The Cama and Allbless Hospitals, St George's Hospital and the Bai Mothibel Hospital in Bombay and the Sassoon Hospital in Poona.

Provision for retiring allowances is made for all members on the basis of a Provident fund and a Nursing Reserve has been established for employment in emergencies such as war, pestilence or public danger or calamity.

Address—The Secretary, Bombay Provisional Nursing Association, c/o Greaves Cotton & Co., Bombay.

Lady Minto Nursing Service.—In 1905 there was one organization existing in the Punjab and the United Provinces called the United Country Nursing Association for Europeans in India which was established in 1892. This Association carried out very useful work in certain parts of India, but was hampered by want of funds. For this reason it was found impossible to extend their organization and the urgent need for a larger number of trained nurses at charges within the reach of all classes was much required. The late Lady Curzon worked energetically to provide an enlarged nursing organization but principally for financial reasons was unable before leaving India to bring her scheme to fruition. The Home Committee of the existing Association recognizing the need of expansion approached Lady Minto before she left England in 1905 and begged her assistance and co-operation. After much consideration and discussion with the Government of India, Lieutenant Governors and Com-

missioners of Provinces, the present Association was established. In 1906 an appeal was made by Lady Minto to the public both in England and India to start an endowment fund. This appeal was most generously responded to. Each year the endowment fund has gradually increased and with the assistance of a Government grant homes for nurses have been established in seven Provinces of India and Burma, of which the original Association formed the nucleus. To avoid confusion with other Associations the enlarged organization by request of the Home Committee was named "Lady Minto's Indian Nursing Association" carrying on the same work as before namely that of selecting suitably trained nurses in England, and making the necessary arrangements for their transfer to India. Hon. Secretary, Lieut.-Col Sir J. H. Roberts, C.I.E., I.M.S. Simla. Hon. Secretary, Home Branch, Lieut.-Col Sir Warron Crooke-Lawless Kilmore Cloyne Co. Cork.

Nurses Organizations.—The Trained Nurses Association of India and the Association of Nursing Superintendents of India are not Associations to employ or to supply nurses but are organizations with a membership wholly of nurses with the avowed objects of improving and uplifting nursing education, promoting *esprit de corps* among nurses, and upholding the dignity and honour of the nursing profession. The Associations have a membership of 202, including nurses trained in ten or more different countries, Europeans, Americans, New Zealanders, Australians and Indians. The Association of Superintendents was started in 1905 as the Association of Nursing Superintendents of the United Provinces and the Punjab but by the next year its membership had spread over the country to such an extent that the name was changed to include the whole of India. The Trained Nurses Association was started in 1905 and a monthly Journal of Nursing began to be published by the two Associations in February 1910. The Associations have since become affiliated with the International Council of Nurses.

Below are given names of Officers of the Associations—

Trained Nurses.—*President* Mrs. Lartlett, *Parsee General Hospital, Bombay.* *Hon. Secretary and Treasurer* Miss Thacker, *Cama Hospital, Bombay.*

Association of Nursing Superintendents.—*President* Miss Dent, *Madras.* *Hon. Secretary and Treasurer* Miss Hawke, *Mission Hospital, Palwal.*

Indians Abroad

The Indian is naturally averse from emigration beyond the seas. Nevertheless there are some hundreds of thousands of Indians resident in other lands as labourers, shopkeepers or professional men. Their total number relatively to the population of the Indian Empire is very small being something under two million. In itself, however, it is considerable and it acquires an extreme importance from the social and political issues involved in the settlement of Indians, either as indentured labourers in Crown Colonies, or as free residents in self governing countries.

The right to migrate—From the Imperial standpoint the case of Indian migration to the self-governing Colonies is much the more important. During the last two years the problems arising therefrom became acute. There were two centres of difficulty—South Africa and British Columbia. In each country the situation involved particular local problems of extreme difficulty. But before passing to a discussion of them it is necessary to refer to the larger question of the right of migration within the Empire. The intense feeling aroused in India by the disabilities suffered by Indians in the two countries named was primarily due to the belief that Indians were being denied the common rights of British citizenship. Without attempting to define the term 'British citizenship' which is not so easily susceptible of definition as may be imagined, it must suffice to observe that unrestricted migration within the Empire does not appear to be the common right of His Majesty's subjects. The laws of the Dominion of Canada and the Commonwealth of Australia confer powers of exclusion of would-be immigrants hailing from any part of the Empire. These laws have been enforced against Englishmen on various grounds. The ground of exclusion is usually economic, and it is on that ground that the Colonial objection to unrestricted immigration from India operates. It is unfortunately inevitable that the problem assumes in the popular mind a racial complexion. But in actual experience it is the clash of economic interests and the possible political difficulties involved in the settlement of Indians in large numbers in the self governing Colonies which the statesmen of the Empire have to take into account.

In South Africa the trouble gathered round the disabilities of Indians already settled there. The question of immigration restrictions, though important, held a less prominent place in the agitation. The most acute point of the controversy was the annual £3 head tax in Natal. Restrictions on the migration of Indians from one State of the Union to another was another sore point. The requirement to take out trading licenses was also felt to be a vexatious and invidious distinction between Indian and European traders. While the controversy was at its height, an Act was passed in the Union Parliament restricting entry into South Africa to the wife or child of a lawful immigrant or resident who was the wife or child of a monogamous marriage. In a case brought before the courts it was decided that the only wife of a marriage solemnised

according to the rites of a religion permitting polygamous marriages could not be admitted. The leaders of the agitation in South Africa adopted passive resistance tactics, which brought large bodies of Indian workmen in Natal into conflict with the police. The agitation became acute, and a strong demand arose in India for the appointment of a Government Commission to enquire into the whole question. The Union Government appointed a Commission, and invited the Government of India to send a representative. Sir Benjamin Robertson, Chief Commissioner of the Central Provinces, was selected. The Commission reported on the whole favourably to the Indians. It recommended the repeal of the £3 head tax and the removal of restrictions on migration within the Union.

In British Columbia the trouble over Indian immigration came to a head in the early part of this year when a ship-load of Indians was despatched direct from the Far East to Vancouver. It was held up in the harbour there for several weeks. The passengers were not allowed to land. An appeal to the Canadian courts resulted in the rejection of their claim, and eventually they were shipped back to India. The arrival of the Komagata Maru in Calcutta on September 28 1914, was the occasion of a most lamentable incident. Anticipating an attempt to organise a political demonstration, the authorities provided special trains to convey the returned immigrants to their homes in the Punjab and had taken power under Ordinance V of 1914 to require them to do so some sixty men immediately proceeded to their homes, but the balance under the leader Gurdit Singh, endeavoured to force their way to Calcutta. They were turned back by the Military and whilst arrangements were being made for a second special train opened fire on the Police and Officials. The Military dispersed the immigrants by fire, and the majority were afterwards arrested. Port Eastwood, Calcutta Police, and Mr Lomax of the R. B. S. Railway were killed. The Punjab Police had one killed and six injured. Sixteen rioters were killed, as well as two onlookers. The Government of India appointed a commission under the Presidency of Sir William Vincent to investigate the matter and it took evidence in Calcutta and the Punjab.

There are some 4,000 Indians already settled in British Columbia, chiefly Sikhs. They work as agricultural labourers in factories and lumber yards, and also on the railways. The desire amongst them to bring their wives and families out from India points to the fact that they are fairly prosperous and find the conditions of life in the Colony agreeable. The attitude of the Colonial authorities towards them is governed by the general objection to Asiatic immigration. It is felt that the unrestricted entry of Asiatics would threaten the existence of British Columbia as a 'White man's country'. The Immigration of Japanese and Chinese is regulated by special treaties with their Governments. The number of Japanese is limited to a few hundreds annually. Chinese immigrants pay a head tax of 500

dollars on entry. In a speech before the Indian Legislative Council in August of this year H.E. the Viceroy foreshadowed a policy of negotiation with the British Columbia authorities with a view to an arrangement on similar lines to that existing with Japan.

An exaggerated danger.—Making every allowance for the Colonial standpoint those acquainted with the internal condition of India cannot but feel that the fears that the self governing colonies may be deluged by Indian immigration are greatly exaggerated. The total number of Indians resident out of India is under two millions, and of these the majority are to be found in tropical countries (Ceylon alone has 900,000 of them. There is a quarter of a million in Mauritius about another quarter of a million in British Guiana and the West Indies, and 280,000 in the Straits Settlements and Malay States. Of the self governing Colonies South Africa has by far the largest share, her Indian population being a little under 160,000. Natal alone accounting for 133,000. But this is not the result of ordinary migration. The nucleus of the South African Indian community was formed artificially by Natal herself. Until 1911 when it was stopped by the Government of India there was for many years a steady stream of indentured immigration into Natal to supply labour to the sugar and other industries of that colony. The natural increase of the Indian population in South Africa is now much larger than the increase by immigration. In the whole Australasian Commonwealth there are not more than 7,000 Indians. The Dominion of Canada has 4,500 in all. The significance of these trifling totals must be viewed in the light of the conditions prevailing in India. Here it is true, there is a vast population. Were those 300 millions subjected to the economic conditions of Europe, and were they imbued by the adventurous and ambitious spirit of Europeans, there would be good ground for alarm in the Colonies at the possibility of an overwhelming influx of Indians. But those are precisely the conditions that do not obtain in the Indian Empire. The demand for labour in India is always greatly in excess of the supply. The tea-planters of Assam are obliged to compete with the Crown Colonies in an elaborate system of coolie recruitment. Labour-shortage is a chronic difficulty with the cotton mills of Bombay. As industrial expansion proceeds and agricultural methods improve, as more land is brought under cultivation there must be a diminishing likelihood of emigration from India on any large scale. Add to this the inherent reluctance of the Indian to go far from home, and it will be apparent that the danger of "white men's countries" being swamped by Indian immigrants is at the least remote. It is never likely to assume such proportions as would pass the wit of statesmen to control.

Indentured Emigration.—The institution of indentured labour in the tropical colonies of the Empire is one of long standing. As far back as 1864 indentured emigration from India to the British West Indies was in progress under Government control. In the case of several of the tropical colonies there has been no interruption since then in the steady inflow of several thousands of Indian labourers annually. In

Mauritius, the Straits Settlements, the Federated Malay States and Natal the system for various reasons has come to an end, but in all these countries there is now a large population of Indians, permanent or temporary engaged as free labourers or in independent positions. The principal colonies in which indentured emigration still prevails are British Guiana, Trinidad and Fiji. Even here however, there has been a progressive decline during recent years, owing in part to the increased difficulty of recruiting in India. This difficulty arises entirely from the growing demand for labour within the Indian Empire, consequent upon industrial expansion.

The indentured system has been the subject of much controversy. It is disliked in India and by some people in England because it seems to present features analogous to slavery—in that for the term of his indenture the labourer is not a free agent, he is *ad corpus glabre* and bound to serve the employer to whom he is assigned on terms which are absolutely fixed. In the colonies themselves the system is unpopular on two grounds—(1) it tends to depress the current rate of wages, (2) only a minority of the time-expired coolies become permanent settlers, the majority claiming their return passage and taking money out of the colony in the form of savings. From the point of view of the labourer himself, the indentured system, if it has any true resemblance to slavery is a kind of bondage that is easily supportable. He is supplied with a free dwelling under highly sanitary conditions, his wages are fixed on the basis of the rate prevailing in the open market, no deductions are to be made therefrom for rent, hospital accommodation, medical attendance or medicine, which the estate proprietors are bound to provide. Free schooling is available for his children, and if, at the end of his indenture, he elects to remain in the Colony he is given a free grant of Government land. These are the conditions prevailing in British Guiana, but, with the exception of the grant of land, they are similar to those in other colonies where indentured immigration is in force. The permanent Indian population in British Guiana is 127,000; in Trinidad 113,000; in Fiji 40,000; in Mauritius 258,000 and 113,000 in Natal. Other colonies, such as Jamaica and Dutch Guiana (Surinam) have small communities, amounting in each to a few thousand only or time-expired Indian coolies. Ceylon, the Straits Settlements and the Federated Malay States continue to attract Indian labourers, chiefly from Southern India, although no indenture system now exists in those countries.

The Recruitment of indentured coolies in India. is carried on by agents employed by the colonies. Each colony or group of colonies, maintains an Emigration Agent in India at a fixed salary. These Agents are officially recognised by the Government of India. They have a staff of sub-agents under whom a number of recruiters are constantly at work. The most active recruitment is carried on in the United Provinces and the more thickly populated parts of Madras Presidency. Each recruiter is licensed by the Protector of Emigrants appointed by the Provincial Government in India. The licences are renewable annually and they must be

condemned by the Magistrate of the District in which the licensee operates. The Magistrate's countersignature may be cancelled at any time for a breach of the recruiting regulations. The sub-agent receives from the colony employing him Rs. 25 for every man and Rs. 35 for every woman engaged. From this sum the sub-agent has to pay the recruiter himself. The recruits are first drafted to a sub-depot in their own part of the country. They are conveyed thence to the main depot at the port of embarkation. These depots are under the control of the Protector of Emigrants, whose duty it is to ascertain whether the coolies are willing to emigrate and understand the nature of the contract into which they have entered. He is required to assist and advise them to the best of his powers. He must also inspect the ships chartered for the conveyance of the coolies to their destination and to see that the regulations governing the accommodation on board are duly complied with. Each emigrant undergoes a medical examination before embarking. On arrival at the port of destination the emigrants are met by an official of the colony who is styled the Immigration Agent General. His duties are similar to those of the Protector of Emigrants in India with the important addition of supervising the conditions of labour on the plantations. The Government of India may prohibit emigration to any colony in which the rate of mortality amongst the indentured coolies is unduly high, or where proper measures for their protection have been neglected, or the agreements made with the coolies have not been fulfilled. Indentured emigration to Natal has been stopped by the Government of India in consequence of complaints received from that country as to the treatment of the coolies.

Calcutta.—There were five emigration agencies at work at Calcutta, but at the end of 1913 the emigration agencies at Calcutta for Trinidad, Fiji, Jamaica and Mauritius were amalgamated with that for British Guiana. At the same time a central agency was established at Benares. The total number of labourers registered fell from 9,447 in 1912 to 5,167 in 1913. The total number of emigrants registered during the year was 9,171 giving an average of 10 emigrants per recruiter as against 11 in the preceding year. This number was contributed by the different provinces in the following proportions:—United Provinces, 78.68 per cent; Punjab 10.2 per cent; Bengal, 7.37 per cent; Bihar and Orissa 1.76 per cent; Ajmere and the Central Provinces, 1.8 per cent.

The number of emigrants who returned from the several colonies was 3,551 and their ascertained aggregate savings amounted to about £42,900. The average savings per head

were about £24 for Fiji, £10 for Demerara, Jamaica, and Surinam, £9 for Natal and Trinidad and 2s 6d for Mauritius. Over 60 per cent brought back no savings.

There was a slight increase in the average amount remitted by resident immigrants in respect of the colonies of British Guiana, Trinidad, Mauritius and Natal and a decrease in respect of Surinam and Jamaica. The average was again highest in the case of Natal (17s) but this probably includes remittances from traders etc., as well as labourers.

Madras.—The total number of emigrants under the Emigration Act regulations was 2,268 as against 2,516 in 1912. Emigration in 1912 was solely confined to Fiji and British Guiana. 1,192 emigrants returned from Natal 26 from Mauritius and 125 from Fiji.

As regards a recent estimate the number of passengers to the Straits Settlements rose from 107,942 to 117,883 the Highways offered on the rubber plantations being doubtless the chief attraction. Passengers to Ceylon rose from 183,002 to 190,059. Emigration to Burma increased.

Bombay.—The number of emigrants shipped from the port of Bombay under the Indian Emigration Act rose from 2,010 to 2,588. Of these 1,111 were bound for British East Africa and 77 were workers for the Anglo-Persian Oil Company at Mahommehra. From Karachi 334 emigrants (most of them Punjabis) left for Uganda and 103 for the Persian Gulf. A number of other emigrants left the coast districts for South Africa. The Surat District alone reported 1,079 who departed the voyage being for the most part their wives and children of established emigrants.

Statement showing approximately the number of British Indian subjects in the various colonies—

Trinidad	117,100
British Guiana	129,189
Jamaica	20,000
Fiji	44,220
Surinam	26,919
Reunion	3,012
Mauritius	2,7897
Federated Malay States	210,000
Straits Settlements	Figures not available
Cape Colony	6,806
Natal	183,031
Transvaal	10,943
Orange Free State	106
Southern Rhodesia	Figures not available
Australia	Do
New Zealand	Do
Canada	2,500 or 4,500 (the number is uncertain).

INDENTURED LABOUR AND INDIAN OPINION

About the end of 1912, the Government of India appointed a Commission of two Mr. J. McNeill and Mr. Chittam Lal, to report upon the conditions of life of the Indian immigrants in the Colonies. The Commissioners were also desired to submit recommendations as to any

arrangements which may be considered desirable to promote their welfare. The main points to which they were to direct attention were the housing of the labourers and the sanitary conditions in which they live, the adequacy of medical arrangements, whether

tasks are moderate, hours of work suitable and wages adequate whether the administration of justice is fairly conducted and whether labourers meet with any difficulties in prosecuting employers or defending themselves whether the penalties imposed by the labour laws are in any case excessive or unsuitable whether the labourers are subjected to undue restrictions, outside working hours, and whether they enjoy sufficient facilities for proceeding to the Protector of Immigrants or to the Magistrate to lodge complaints the relations generally between employers and labourers whether families are afforded to Indian labourers in social and religious matters and whether repatriations are promptly made and whether immigrants experience any difficulty in obtaining repatriation. They were desired to report specially in respect of certain features of the system these were connected with any excessive number of prosecutions of labourers by employers the position of the Protector of Immigrants the terms of agreement which the emigrant is required to sign the position of free Indians female indenture, and suicides and immorality on the estates.

Merits of the system.—The Commissioners were engaged in their investigation for about 11 months. They visited Trinidad, British Guiana, Jamaica, Fiji, and also the Dutch colonies of Surinam which is permitted to recruit labourers under contract of indenture in India. Their report is in two parts, Trinidad and British Guiana taking up the first, and the rest the second part after a detailed exposition of the state of things in respect of the points mentioned above in each of the colonies visited by them. The Commissioners observe: "We are convinced that notwithstanding our possibly disproportionate presentation of the unsatisfactory nature of the existing system a careful study of the facts elicited during our inquiry will result in the conclusion that its advantages have far outweighed its disadvantages. The great majority of emigrants exchanged grinding poverty for a condition varying from simple but secure comfort to solid prosperity. Emigrants live under very much better conditions than their relatives in India and have had opportunities of prospering which exceeded their own wildest hopes. They became citizens of the colonies to which they emigrated and both they and their descendants have attained to positions commanding general respect and consideration. As regards the moral condition of the immigrants the Commissioners observe: "There is no doubt that the morality of an estate population compares very unfavourably with that of an Indian village and that the trouble originates in the class of women who emigrate. The rates of suicide among the indentured labourers are high as compared with those among free Indians in the colonies and much higher than those among the population in the provinces of India. In Trinidad the suicide rate for the total Indian population was 184 per million and for the

indentured 400 per million. The suicide rates among Indians in the other colonies were, British Guiana, unindentured, 52 per million, indentured 100 per million, Jamaica, 398 per million, suicides amongst the unindentured not being separately recorded, Dutch Guiana, unindentured 43, indentured 91, Fiji, unindentured, 147 per million, indentured 226 per million. According to a statement prepared by the Department of Commerce and Industry of the Government of India, the average suicide rates for India are the Bombay Presidency 28.8 per million the United Provinces whence most emigrants are drawn, 63 per million and Madras the other chief source of supply to Fiji 45 per million.

Indian Feeling.—For some years past, there has been a growing feeling amongst Indian leaders that the indentured system of labour was inconsistent with national self respect and should be stopped. This feeling originated in the belief that the treatment accorded to Indians in the self governing colonies (especially in South Africa) was due to the Colonial Commission to think poorly of Indians as a race and cause of the class represented by indentured labourers. In 1910 the Government of India accepted a resolution moved by the late Mr. Gokhale regarding an end to the indentured system so far as Natal was concerned. In 1912, however, they opposed his resolution to abolish the system altogether. Opinion in India has been ripening fast against the system, and it is reinforced by the rapid industrial development of the country making largely increasing demands on the labour market depleted to some extent by the ravages of plague during the last twenty years. The startling figures of suicide and the admissions as regards the prevalence of gross immorality among estate populations have roused public feeling in the country and this has been accentuated by well authenticated stories of young caste women of respectability having been decoyed by dishonest recruiting agents to the emigration depots. Mr. J. Anand, late of St. Stephens College, Delhi and now connected with the school conducted on his own original lines by Sir Rabindranath Tagore—the poet laureate of Asia as the Viceroy aptly called him—at Bolpur in the Bengal Presidency has been deputed by the Indian Citizenship Association of Bombay to visit Fiji and to investigate the conditions which make for the frightful rate of suicide recorded in that colony. He is accompanied by Mr. W. Pearson who is also associated with the Poplar School, Messrs. Andrews and Pearson, it may be mentioned. Visited South Africa when the Passive Resistance struggle led by Mr. Gandhi was at its height and rendered valuable service in bringing about the settlement that was eventually arrived at. They have visited Australia on their way to Fiji and have it is understood enlisted the sympathy of leading Australian statesmen on behalf of their mission.

Indians in Great Britain.

Since on sixty years have gone by since the Parsi community, in the persons of Mr. Dada Bhai Naoroji and other members of the firm of Cama and Co. led the way in the residence of Indians in England for business purposes. This lead it has since maintained though there are both Hindu and Mohammedan business men firmly established there. Nor are the professions unrepresented for there are in London practising barristers and solicitors of Indian birth. Two Indians are on the Secretary of State's Council, and at least one successful in the Civil Service examination elected to work in England instead of returning to his native land. The early years of the present century have seen the gathering of a new Indian element in permanent residence—that of retired officials (particularly of the I. M. S.) and business men or people of independent means who from preference or in order to have their children educated in England leave the land of their birth and seldom if ever visit it again. Further the (temporarily greatly diminished by the war) stream of Indian summer visitors includes wealthy people who return as regularly as the swallows in spring, and some of them spend as much time in England or on the Continent as in their native land. While the men adopt European dress so fully that a turban is a rare sight even at Indian gatherings, the ladies wisely retain their graceful Eastern habiliments and it is astonishing to note on occasions how large a number of Indian women so attired can be collected together at the Criterion or at 21 Cromwell Road. In the last fifteen months thousands of our valiant Indian soldiers wounded or invalided from Flanders have gone to England for the first time in their lives to be nursed back to health in the well equipped and admirably administered Indian hospitals in Hampshire and at Brighton.

The Students.

But under normal conditions it is the student community which constitutes the greatly preponderating element and creates an Indian problem. Its numbers have multiplied ten or twelvefold in the last quarter of a century, the increase being especially rapid since 1904 or 1905. There was indeed an artificial inflation some five years ago when many youths (some of them ill prepared) were hurried off to the Inns of Court in order to be entered before more stringent rules for admission from the overseas dominions came into force. While this sudden expansion has been worked off to a large extent there has been development in other directions, and particularly that of the technical and engineering schools and classes. Allowing for the very considerable temporary check caused by the European War the aggregate number may be estimated at between 1,300 and 1,400. This total does not include more than a few of the growing number of youths of good family some of them heirs of Native States admitted into our public schools including Eton and Harrow. Nor the younger children of resident Indians. It does not comprehend Burmese students of whom there are about 80. Nor does it take full account of female students

in schools and colleges. While it is not possible to obtain exact and complete records it is certain that the young people from all parts of India of both sexes and all ages under instruction in the British Isles cannot be far below 2,000.

It is, however, with the 1,300 or 1,400 young men almost all far removed from parental oversight and control, that the organisation set up by the Secretary of State for India has to deal. Of these on 80th June last 161 were at the Middle Temple, 146 at Lincoln's Inn 66 at Gray's Inn and 58 at the Inner Temple. Al together including technical and medical students, there must be 600 or 700 in London. Edinburgh comes next with over 200. Cambridge with 100. Oxford with 80. Glasgow with 70 and Manchester with 80. While there are smaller numbers at Birmingham, Leeds, Sheffield, Dublin and other centres.

The Bureau.

It is well known that until a few years ago the young Indians, apart from inadequately supported unofficial effort and the chance of coming under the influence of English friends of their families were practically left to their own devices. But in April 1909 Lord Morley, as a result of the investigations of an India Office Committee created for their benefit a Bureau of Information and appointed Mr. T. W. Arnold to the charge of it under the title of Educational Adviser. The Bureau was located in due time at 21 Cromwell Road, together with the National Indian Association and the Northbrook Society which were thus given spacious quarters for their social work among the young men without incurring what would otherwise have been the prohibitive cost of heavy rent. Lord Morley also established an Advisory Committee mainly composed of influential Indian residents and in India corresponding provincial and district committees were formed to help and advise intending students. The work of the Bureau rapidly expanded and in consequence Lord Crewe in 1912 re-organised the arrangements under the general charge of a Secretary for Indian Students, Mr. C. E. Mallet. While Mr. Arnold continued to look after the London students and to act as guardian when so desired by the parents, local Advisers were appointed at the provincial universities.

Two strange delusions (in some cases they may be called deliberate misrepresentations) have been propagated in reference to these arrangements. One is that the India Office set up the Bureau in order to track down the wave of seditious sentiment which culminated in the assassination of Sir Curzon Wyllie five years ago. As a matter of fact the Bureau was established three months before the commission of that crime and was proposed at least a year previously. The object as *The Times* observed in September 1908 was not "to put these young men into political leading strings, nor officially to restrict their liberty. It lies in doing all that is possible to facilitate their educational progress and their general welfare and in bringing them under whole some and helpful influence. Mr. Arnold accepted his appointment on the distinct

understanding that there would be no sort of kind of espionage and Mr Mallet told a gathering of students in 1918 that it was a complete delusion to regard the Bureau as an instrument of espionage. He would never have anything to do with it if that were its character.

Opening Closed Doors.

It is no less of a delusion for the students to hold as some of their elder fellow-country men have encouraged them to do that the Bureau is responsible for restrictive rules and regulations of colleges and other institutions, or at any rate for their continuance in spite of protests. The fact of the matter is that in consequence of the wave of disaffection to which reference has been made as well as of various practical difficulties arising from the growth in numbers of Indian applications for admission many of the universities and other educational institutions had passed restrictive and in some cases almost prohibitive regulations affecting Indians when the Bureau came into being. The authorities in question are independent of outside control and of no department in Whitehall are they more so than of the India Office. The Bureau cannot do more than approach them with requests and suggestions for the benefit of Indians, or with undertakings to afford the sponsorship which in many cases is made a condition of admission.

So far from blocking the way as hostile observers have alleged the Bureau has been singularly successful in opening closed doors and mitigating any real grievances. Mr Mallet has intimated he would welcome the co-operation of any organisation for promoting the educational interests of the students. But it is easier to make eloquent speeches and pass resolutions than to study rules and regulations and represent to the authorities with moderation and clearness where they need amendment and such organisations have so far been infrequent.

The complaints made by some of the students were investigated in a most sympathetic spirit by an Indian sub-committee of the London Advisory Committee and the report was published last summer. With the letter in reply from the Secretary of State in Council (then Lord Cromer) it affords evidence that the work of the department has been earnest and well directed and that to quote the comment of *The Times* young Indians can best advance and sustain their claims in relation to educational institutions at home by co-operation with the machinery the Secretary of State has provided rather than by aloofness and hostile criticism of the department. There are no insuperable obstacles of race. Sir T. Morison's Committee on State Technical Scholarships reported in 1915 that the difficulties encountered by young Indians in supplementing academic instruction by technical experience in factories and work shops are general in character being also applicable to their English contemporaries and that there is on the whole very little evidence of a racial prejudice against Indians. And no youth need go to England under any misapprehension as to the facilities for his education and their limitations. The excellent *Hand Book of Information for Indian Students* issued by the National Indian Association and

the Advisory Committee now in its fifteenth edition (1914) supplies all relevant facts and advice and on personal details the Indian Advisory Committees can be consulted.

Persuasion not Coercion.

Another mistaken notion held by some Anglo-Indians of the old type is that the Bureau could easily exercise disciplinary control over all young Indians in London. The fact is that except in respect to holders of Government and some Native State Scholarships it has no disciplinary authority save when parents place their sons under guardianship of Mr Arnold or a provincial Adviser and even in these cases the control can only be exercised in connection with the administration of the regular allowances. The Bureau has had a most beneficial influence in saving scores of young men from falling into debt, intemperance or marital folly, but this has been exercised not coercively but by friendly personal contact and keeping before them the obligation and necessity from every point of view of adhering to the purposes of educational equipment for which they have gone to England. From the first the keynote of the scheme has been that of enabling the steadfast to make use of facilities for their welfare at their own discretion without any apprehension of constraint or coercion. Generally it may be said that considering the difficulties of the problem the success attending the arrangements initiated in April 1909 has been considerable and that they have in them the promise of increasing good in the light of accumulated experience.

The removal of misunderstanding and prejudice should be materially promoted by the changing and steadfast conditions brought about by India's magnificent response to the call or Empire in the European War.

In this young Indians in England have had their part. A few promptly enlisted in the Kitcheners' Army being readily admitted on attesting thereto by Mr M. G. Gadhvi, who was in England on his way from South Africa to India when the war commenced offered their services unconditionally to the authorities with the result that an Indian Field Ambulance Corps was organised under the command of Colonel R. J. Baker late I.M.S. The total enrolled strength of the Corps was 272 of whom altogether 215 were employed at the various Indian hospitals and depots in England or on the Indian hospital ships. The Corps would have grown still further had not the War Office stopped recruitment in consequence of the ample provision made by the Government of India in the equipment of the medical and ambulance side of the Expeditionary Force. But in the autumn there were still nearly 100 members of the Corps serving. Two of them had received permanent, and 28 of them temporary commissions in the I.M.S. Meanwhile a committee of students pressed the claims of Indians at the Universities and other educational institutions to be admitted to the Officers' Training Corps. The official reply is that it is one of several military questions which can only receive adequate consideration from the military authorities after the conclusion of the war.

Appointments to the Indian Services

Full details of the regulations governing appointments to the Indian Services are published in the India Office List. The more essential particulars except as regards the Civil Service and Police,—of which fuller details are given elsewhere in this book—are given below.

Indian Agricultural Service

The appointments in the Indian Agricultural Service include those of Deputy Director of Agriculture, Agricultural Chemist, Economic Botanist, Mycologist, Entomologist, Professors of Agriculture, Chemistry and Botany at Agricultural Colleges and the like. Some of these are included in the Imperial Department of Agriculture under the direct control of the Government of India, but the majority are included in the Departments of Agriculture of the several provinces of India. In some cases candidates will be appointed direct to these posts, but in most cases they will be appointed as supernumeraries will undergo a further course of training in India in Indian agriculture and will be appointed to posts for which in the opinion of the Government they are considered suitable, on the regular establishment as vacancies occur. Appointments are made by the Secretary of State for India as occasion may require. Candidates must as a rule, be not less than 23 nor more than 30 years of age. In selecting Candidates for appointment weight will be given to the possession of (a) a University degree in honour in science or the diploma of a recognised school of agriculture or other like distinction, (b) qualifications in a special science according to the nature of the vacancy to be filled, (c) practical experience. Importance is also attached to bodily activity and ability to ride and selected Candidates have to undergo an examination by the Medical Board of the India Office as to their physical fitness for service in India.

The salary attached to posts in the Indian Agricultural Service will ordinarily be —

	Rs
For the first year	400 per mensem.
second year	430
third year	460
fourth and subsequent years	500 rising by annual increments of Rs 50 a month to Rs 1 000 a month

Candidates who are required to undergo a further course of training in India as explained above will be appointed on this scale of salary commencing on a pay of Rs. 400. Where, for special reasons a Candidate is recruited for direct appointment to one of the regular posts under paragraph 1, his initial pay will be determined with reference to the special qualifications on the length of European experience required for the appointment for which he is specially selected, but his subsequent increments of salary will be regulated by the foregoing scale. In addition to this scale of pay officers filling appointments directly under the Government of India, as distinguished from appointments under Local Governments (but not including officers holding supernumerary posts the post of Inspector-General or the post of Director of the Pusa Institute) will be eligible for local allowances conditional on approved good work and the Government reserves to itself the fullest discretion as to granting withholding or withdrawing them.

Indian Civil Veterinary Department

The officers of the Indian Civil Veterinary Department perform or supervise all official veterinary work in India other than that of the Army and are debarred from private professional practice in India. Their duties may be divided into three classes, under the following heads —

- Educational work in veterinary colleges
- Horse and mule breeding
- Cattle disease and cattle breeding

Appointments to this Department are made as vacancies occur by the Secretary of State for India. Candidates must not (except on special grounds to be approved by the Secretary of State) be over 26 years of age and must

possess a diploma from the Royal College of Veterinary Surgeons. Evidence of a knowledge of bacteriology and of capacity for carrying out original research will be specially taken into account in estimating the claims of candidates. Good health, a sound constitution, and active habits are essential and candidates must be certified by the Medical Board of the India Office to be physically fit for service in India.

Pay will be as follows — On arrival in India Rs 500 a month rising by Rs 40 each year to Rs 1 100 which rate will continue from the beginning of the 18th to the end of the 20th year of service after the beginning of the 21st year Rs 1 200 a month.

Ecclesiastical Establishments (Church of England)

Appointments of Chaplains on Probation are made from time to time by the Secretary of State for India, as vacancies occur. Candidates for these appointments must be Priests who are between the ages of twenty-seven and thirty-four years, and have been for three years altogether in Holy Orders. Applications for nominations should be submitted to the Secretary of State.

A Chaplain will be on probation for three years (a) if confirmed in his appointment at the end of that period, he will be admitted as a Junior Chaplain.

The salaries of Chaplains are —

Senior Chaplains Rs. 10 200 per annum for five years, and then Rs. 12,000 per annum.

Junior Chaplains Rs. 6 340 per annum for five years, and thereafter Rs. 8 160 per annum until promoted to be Senior Chaplains.

Chaplains on Probation, Rs. 5,760 per annum.

A Junior Chaplain becomes a Senior Chaplain after ten years service, excluding the period of probation.

The retiring pay of Chaplains is regulated by the following scale —

	Per annum. £ s. d.
After 23 years service, with an actual residence in India of 20 years including the period of probation	865 0 0

On Medical Certificate.		£ s. d.
After 18 years' actual residence in India, including the period of probation		292 0 0
After 13 years	ditto	173 7 6
After 10 years	ditto	127 15 0

Ecclesiastical Establishments (Church of Scotland)

The appointments of Chaplains of the Church of Scotland on probation are made from time to time by the Secretary of State for India, according as vacancies occur. Candidates for these appointments must have been licensed for three years and be under thirty-four years of age. Applications for nominations should be submitted to the General Assembly's Committee on Indian Churches along with testimonials based on a personal knowledge of the candidate's qualifications. Chaplains will be on probation for three years (a). If confirmed in their appointment at the end of that period they will be admitted as Junior Chaplains.

The salaries of Chaplains are —

Senior Chaplains Rs. 10,200 per annum, and then Rs. 12,000 per annum.
Junior Chaplains, Rs. 6,360 per annum for five years, and thereafter Rs. 8,160 until promoted to be Senior Chaplains.

Chaplains on probation Rs. 5,760 per annum.

A Junior Chaplain becomes a Senior Chaplain after 10 years service, excluding the period of probation.

The retiring pay of Chaplains is regulated by the following scale —

	Per annum £ s. d.
After 23 years service with an actual residence in India of 20 years including the period of probation	865 0 0

On Medical Certificate

After 18 years' actual residence in India, including the period of probation		£ s. d.
After 18 years	ditto	292 0 0
After 13 years	ditto	173 7 6
After 10 years	ditto	127 15 0

Educational Appointments

The Indian Educational Service comprises those posts in the Educational Department to which appointments are made in England by the Secretary of State, and is thus distinguished from the Provincial Educational Services, which are recruited exclusively in India. It consists of two branches the teaching including Principalships and Professorships, in the various Government Colleges and Head Masterships in certain High Schools and the inspecting including Inspectorships of Schools, but officers may be transferred at the discretion of Government from one branch to the other and the conditions of pay and service are the same for both. It also includes certain special appointments such as those of Superintendents of Schools of Art for which special qualifications are required and special terms of engagement are prescribed. Officers of the teaching branch may be required to undertake duties in connection with the supervision of students in hostels or boarding houses and with the direction of their studies and recreations. Appointments are made by the Secretary of State; on occasion may require only laymen are eligible candidates must as a rule be not less than 23 nor more than 30 years of age, but exceptions are sometimes made as regards the maximum limit only. Candidates must be British subjects, and must furnish evidence of having received a liberal education.

In selecting candidates for appointment weight will be given to the possession of (a) a University degree in Honours, or equivalent distinction (b) experience as a teacher (c) qualifications in special subjects, depending on the nature of the vacancy to be filled. In selecting candidates for inspecting appointments, weight is given to linguistic talent, capacity for organisation and knowledge, practical or theoretical, of educational methods.

The salaries paid are as follows — A newly appointed Inspector or Professor receives Rs. 500 a month rising by annual increments of Rs. 50 a month to Rs. 1,000 a month. When this point has been reached the increase of his emoluments depends upon his promotion and takes the form of allowances ranging from Rs. 200 to Rs. 500 in addition to the salary of Rs. 1,000. There are at present 80 such allowances. There is in every Province a Director of Public Instruction. The posts of Director of Public Instruction are reserved for the Indian Educational Service so long as members of that Service can be found well qualified to fill them. Their pay differs in different Provinces —

- Three receive a salary of Rs. 2,000—100—2,500 a month
- Two receive a salary of Rs. 2,000 a month.
- One receives a salary of Rs. 1,750—50—2,000 a month
- Two receive a salary of Rs. 1,500—100—2,000 a month
- One receives a salary of Rs. 1,250 rising to Rs. 1,500 a month

Head Masters are appointed on an initial pay of Rs. 500 rising by annual increments of Rs. 50 a month to Rs. 1,000 a month, except in cases in which Local Governments may prefer to recruit on the scale of Rs. 500 a month, rising by annual increments of Rs. 50 a month to Rs. 750 a month. Head Masters are eligible for subsequent transfer to Inspectorships or if qualified professorships. In all cases, increments of salary are given for approved service only.

For the appointments dealt with above men only are eligible. There are, however, some posts in the Indian Educational Service which are open to women and these comprise appointments as Inspectresses of Girls' Schools, Principals

pairs of Training Colleges, and occasionally Headmistresses of Schools. The salary attached to these appointments is ordinarily Rs. 400 a month, rising by annual increments of Rs. 20 a month to Rs. 500 a month.

The Secretary of State is sometimes requested by the Government of India to supply persons to fill temporary vacancies in the Indian Edu-

national Service, generally professorships in Colleges. Such appointments are made for not less than a university year (about nine months), with a prospect, in the case of thoroughly approved service of future selection to fill either a temporary or a permanent appointment. The salary is Rs. 500 a month rising by annual increments of Rs. 50 a month.

Indian Forest Service

The Secretary of State for India in Council makes appointments of Probationers for the Indian Forest Service, according to the numbers annually required.

Candidates must be not less than 19 but under the age of 23 years.

Candidates must have obtained a degree with Honours in some branch of Natural Science in a University of England, Wales or Ireland, or have passed the Final Bachelor of Science Examination in Pure Science in one of the Universities of Scotland. A degree in Applied Science will not be considered as fulfilling these conditions. Candidates will be required to produce evidence that they have a fair knowledge of either German or French.

The ordinary period of probation will be two years. During that time probationers will be required to pass through the Forestry course at one of the following Universities—Oxford, Cambridge or Edinburgh (subject to the arrangement of a suitable course)—becoming members of that University if not so already to obtain the Degree or Diploma in Forestry which it grants and to satisfy such other tests of proficiency as may be deemed necessary.

During the vacations the Probationers will under the direction and supervision of the Director of Indian Forest Studies appointed by the Secretary of State for India in Council receive practical instruction in such British and Continental forests as may be selected for the purpose.

The Secretary of State for India in Council will make payments to each Probationer at the rate of £120 annually not exceeding a total of £240.

Probationers who obtain a Degree or Diploma in Forestry, and also satisfy such other tests of proficiency as may be prescribed, will be appoint-

ed Assistant Conservators in the Indian Forest Department, provided they are of sound constitution and free from physical defects which would render them unsuitable for employment in the Indian Forest Service.

The sanctioned scale of the service at present is—

	Rs.	
1 Inspector General of Forests	2,650 a month.	
1 Assistant Inspector General of Forests		
2 Chief Conservators (Burma and Central Provinces)	2,160	
22 Conservators, in three grades (including Forest Research Institute and College)	1,900 1,700 1,600	6 4 2 ADVISORIAL
187 Deputy and Assistant Conservators		

An Assistant Conservator of Forests will draw pay at the rate of Rs. 880 a month from the date of his reporting his arrival in India rising by annual increments of Rs. 40 a month to Rs. 700 a month, thereafter by annual increments of Rs. 50 a month to Rs. 1,250 a month in the 18th year of service.

After a service of not less than 20 years, a retiring pension is granted not exceeding the following amounts—

Scale of Pension		Maximum Limit of Pension
Years of Completed Service	Sixtieths of Average Emoluments	
20 to 24		Rs. 4,000 a year
25 and above	80	Rs. 5,000 a year

Indian Geological Survey

The Geological Survey Department is at present constituted as follows—
Monthly Salary

	Rs.	Rs.	Rs.
1 Director	2,000		
3 Superintendents			
15 Assistant Superintendents—	1,000 rising by 80 to 1,400		
For the first five years			
Thereafter			
1 Chemist	300	30	500
	500	50	1,000
	600	60	1,000

Appointments to the Department are made by the Secretary of State for India. They will usually be made about July of each year and the probable number of appointments will, if possible, be announced about two years in advance. The age of candidates should not exceed 35. Besides a good general education a sound education in geology is essential.

University degree and a knowledge of French or German will be regarded as important qualifications and certificates of a high moral character will be required. Candidates must also have had one or two years' practical training in mines, or in technical laboratories, as may be required by the Government of India. First appointments are probationary for two years.

India Office.

Vacancies in the clerical establishment of the Secretary of State for India are filled from among the successful candidates at the General Examinations (Class I and Second Division) which are held from time to time by the Civil Service Commissioners for appointments in the

Home Civil Service. The Examination for Class I Clerkships is the same as the open Competitive Examination for the Civil Service of India. Further particulars may be obtained upon application to the Secretary Civil Service Commission, Burlington Gardens, London, W.

Indian Public Works Department

The Secretary of State for India in Council makes appointments of Assistant Engineers in the Public Works Department of the Government of India.

Candidates must have attained the age of 21 and not attained the age of 24 years.

Candidates must produce evidence that they have (1) obtained one of the University degrees mentioned in Appendix I or (2) passed the A.M.I.C.E. examination or (3) obtained such diploma or other distinction in Engineering as may in the opinion of the Selection Committee be accepted as approximately equivalent to the degrees mentioned.

The Engineer Establishment of the Indian Public Works Department consists of a staff of engineers, military and civil engaged on the construction and maintenance of the various public works undertaken by the State in India.

2. The permanent establishment of the Department is recruited from the following sources —

- (1) Officers of Royal Engineers
- (2) Persons appointed to the Imperial Service by the Secretary of State by selection from the United Kingdom
- (3) Persons educated at the Government Civil Engineering Colleges in India and appointed to the Provincial Services by the Government of India
- (4) Occasional admission of other qualified persons

The increments will be given for approved service only and in accordance with the rules of the Department.

Exchange compensation allowance will not be granted to future entrants.

Promotions above the grade of Executive Engineer are dependent on the occurrence of vacancies in the sanctioned establishment and is considered to confer no claim to promotion.

3. The various ranks of the department are as follows —

	Salary per annum (Imperial Service)
Chief Engineer	Rs 33,000
First Class	30,000
Second Class	24,000
Superintending Engineer	21,000
First Class	19,000
Second Class	
Third Class	
Executive Engineer	20th year of service and following years 15,000
Executive Engineer	19th year of service 14,400
	18th 13,800
	17th 13,200
	16th 12,600
	15th 12,000
	14th 11,400
	13th 10,800
	12th 10,200
	11th 9,600
Assistant Engineer	10th 9,000
	9th 8,400
	8th 7,800
	7th 7,200
	6th 6,600
	5th 6,000
	4th 5,400
	3rd 4,800
	2nd 4,200
	1st 3,600

State Railways

The Secretary of State for India in Council will, from time to time as may be required, make appointments of Assistant Traffic Superintendent on Indian State Railways.

Candidates must possess one or other of the following qualifications viz. —

- (a) Not less than two years practical experience of work in the Traffic Department of a British or Colonial Railway together with evidence of a sound general education.
- (b) A degree or diploma of any teaching University in the United Kingdom granted after not less than three years study in that University, or a technical

diploma or certificate recognized by the Secretary of State.

The establishment of the Superior Traffic Department of Indian State Railways consists of a staff of officers, military and civil, engaged on the various railways administered by the State in India. This establishment is recruited from the following sources —

- (1) Officers of Royal Engineers.
- (2) Persons appointed by the Secretary of State by selection from the United Kingdom
- (3) Persons appointed in India.
- (4) Occasional admission of other qualified persons

The various ranks of the Department are as follows —

	Salary per annum. Rs
Traffic Managers	24 000
Deputy Traffic Managers	18 000
District Superintendents —	
Class II Grade 1	18 200
Grade 2	12 000
Grade 3	10 800
Grade 4	9 600
Grade 5	8 400
Assistant Superintendents —	
Class III Grade 1	6 600
Grade 2	5 400
Grade 3	4 800
Grade 4	3 600
Grade 5	2 400 3 000

The establishments of the Superior Locomotive and Carriage and Wagons Departments of Indian State Railways consist of officers engaged on the various railways administered by the State in India. These establishments are recruited from the following sources —

(i) Persons appointed by the Secretary of State by selection from the United Kingdom

(ii) Persons appointed in India

(iii) Occasional admission of other qualified persons

The various ranks of the Departments are as follows —

	Salary per annum. Rs
Locomotive Superintendents	24 000
Deputy Locomotive Superintendent	18 000
Carriage and Wagon Superintendents	18 000 or 21 000
Deputy Carriage and Wagon Superintendents	15 000
District Superintendents —	
Class II Grade 1	18 200
Grade 2	12 000
Grade 3	10 800
Grade 4	9 600
Grade 5	8 400
Assistant Superintendents —	
Class III Grade 1	6 600
Grade 2	5 400
Grade 3	4 800
Grade 4	3 600
Grade 5	2 400 3 000

Telegraph Department

There are not at present any vacancies in the Superior Establishment of the Indian Telegraph Department and it is considered unnecessary for the present to recruit any Assistant Superintendents from the United Kingdom. The arrangements for the future recruiting of the Department have not been finally settled. The various ranks of the superior establishment are as follows —

Maximum
Salary
per
month

	Rs
Director-General	3 000
Deputy Director General	2,000
Directors	1 800
Deputy Directors	1 800
Chief Superintendents, 1st Class	1 400
Chief Superintendents 2nd class	1,250
Superintendents 1st Grade	1 000
2nd Grade	850
Assistant Superintendents 1st Grade	700
2nd Grade	550
3rd Grade	450
4th Grade	350

His Majesty's Indian Army

A certain number of appointments to the Indian Army are offered to Cadets of the Royal Military College and a certain number to candidates from the Universities. All King's Cadets (British and Indian) and Honorary King's Cadets nominated by the Secretary of State for India in Council have the option during their last term at the Royal Military College of electing for appointment to the Unattached List for the Indian Army or for appointment to commissions in British Cavalry or Infantry. The appointments to the Unattached List for the Indian Army remaining after the claims of the King's Cadets and Honorary King's Cadets (Indian) have been satisfied are allotted in order of merit to Cadets who satisfy the requirements of the Regulations respecting admission to the Royal Military College and who elect to compete for such appointments at each final Examination at Sandhurst.

King's India Cadetships.

Twenty King's India Cadets are nominated each half year from among the sons of persons who have served in India in the Military or Civil Service of His Majesty or of the East India Company. A candidate is not eligible for nomination as a King's India Cadet if he be under 17 or over 19½.

A candidate is not eligible for nomination and his claims will in no circumstances be considered until he (a) has qualified at the Army Entrance Examination or (b) is prepared to attend the next examination. The fees of King's India Cadets at the Royal Military College are not payable by the State except in cases where after due inquiry their pecuniary circumstances are ascertained to be such as to justify the payment.

Honorary King's India Cadetships.

Three Honorary King's India Cadets are nominated annually by the Secretary of State for India. Such Cadets are appointed from—

(a) The sons of officers of the Indian Army, who were killed in action or who have died of wounds received in action within six

months of such wounds having been received, or from illness brought on by fatigue, privation or exposure, incident to active operations in the field before an enemy within six months after their having been first certified to be ill.

- (b) The sons of officers of the Indian Army who have obtained the brevet substantive rank of Major or Lieutenant-Colonel and have performed long or distinguished service

An Honorary King's Cadetship carries with it no pecuniary advantage

Queen Alexandra's Military Nursing Service for India

The Nursing establishment is for duty with British officers and soldiers and at present consists of—

4 Lady Superintendents.

16 Senior Nursing Sisters

71 Nursing Sisters

The numbers in these grades are subject to alteration

Nursing Sisters at the time of appointment must be over 27 and under 32 years of age. Candidates for the Service must have had at least three years preliminary training and service combined in the wards of a British general hospital or hospitals of not less than 100 beds in which adult male patients receive medical and surgical treatment and in which a staff of Nursing Sisters is maintained

The duration of a term of service for all grades of lady nurses is five years. A lady nurse who has been pronounced by a medical Board to be physically fit for further service in India may be permitted to re-engage for a second and third term at the option of the Government and again for a fourth term or until the age of compulsory retirement. If in all respects efficient and if specially recommended by the Commander in Chief in India. But a lady nurse will not under any circumstances be permitted to remain in the service in the grade of Lady Superintendent beyond the age of 50 years or in either of the other grades beyond the age of 50 years

Rates of Pay

(In addition to free quarters, fuel, light and punkah pullers.)

	Ra. per mensem
Lady Superintendent	300
Senior Nursing Sister over five years in grade	225
Senior Nursing Sister under five years in grade	200
Nursing Sister over five years in grade	200
Nursing Sister under five years in grade	175

Royal Indian Marine.

All first appointments of executive officers in the Royal Indian Marine are made by the Secretary of State for India.

The limits of age for appointment to the junior executive rank that of Sub Lieutenant, are 17 and 22 years and no candidate will be appointed who does not possess the full ordinary Board of Trade certificate of a Second Mate, certificates for foreign going steamships will not be accepted

PAY AND ALLOWANCES.

The present establishment of officers of the Royal Indian Marine and their allowances are as follows—

32 Commanders on pay ranging from Rs 850 to Rs 600 in addition to staff or command pay

per mensem.

72	Lieutenants on completing eight years seniority	On Rs 500.
	Lieutenants on completing six years seniority	On Rs 250.
	Lieutenants on completing three years seniority	On Rs 200.
	Lieutenants under three years seniority	On Rs 160
	Sub-Lieutenants	On Rs 125
	Sub-Lieutenants	On Rs 100.

Total 104

In addition 8 Commanders and 8 Lieutenants are at present employed in the Marine Survey of India.

A certain number of Shore, Port and Marine Survey appointments are usually reserved for officers of the Royal Indian Marine. The numbers so reserved and the allowances attached (in addition to pay of grade) are as follows—

	Allowances per mensem.
	Ra.
4 Shore appointments	400—1000
18 Port appointments	520—870
11 Marine Survey appointments	4—20

The sanctioned establishment of the Engineers branch of the Marine numbers 82, of whom at present, 10 are Chief Engineers, and the remainder Engineers and Assistant Engineers.

Sterling Equivalents

N.B.—In calculating the sterling equivalents of rupee salaries drawn by Europeans appointed in England to permanent service in India, it is necessary to bear in mind that in some cases Exchange Compensation Allowance is drawn in addition to salary. The allowance is at present at the rate of 64 per cent on the salary subject to a maximum of Rs 138 14 3 a month, but the rate is subject to alteration in the event of any material variation in the average rate of exchange between England and India.

The following table shows the approximate equivalent in sterling of the rupee salaries stated (a) when Exchange Compensation Allowance is not granted (b) when it is granted at the rate just mentioned.

Rupees per Month	Rupees per Annum		Rupees per Month		Rupees per Annum		Rupees per Month		Rupees per Annum		Rupees per Month		Rupees per Annum		Rupees per Month		Rupees per Annum	
	(a) Equivalent without R C A	(b) Equivalent with R C A																
100	1,200	80	65	520	52	1,600	19,200	1,360	1,600	1,360	1,360	1,360	1,600	1,360	2,800	34,800	2,800	34,800
120	1,500	100	106	590	526	1,700	20,400	1,360	1,700	1,360	1,445	1,445	1,700	1,445	3,000	36,000	2,400	2,951
150	1,900	120	137	600	637	1,800	21,600	1,440	1,800	1,440	1,530	1,530	1,900	1,530	3,100	37,200	2,480	2,591
175	2,100	140	149	640	680	1,900	22,800	1,520	1,900	1,520	1,615	1,615	2,000	1,615	3,200	38,400	2,560	2,671
200	2,400	160	170	680	722	2,000	24,000	1,600	2,000	1,600	1,700	1,700	2,100	1,700	3,300	39,600	2,640	2,751
250	3,000	200	212	720	765	2,100	25,200	1,680	2,100	1,680	1,785	1,785	2,200	1,785	3,400	40,800	2,720	2,851
300	3,600	240	255	800	807	2,200	26,400	1,760	2,200	1,760	1,870	1,870	2,300	1,870	3,500	42,000	2,800	2,911
350	4,200	280	297	840	850	2,300	27,600	1,840	2,300	1,840	1,961	1,961	2,400	1,961	3,600	43,200	2,880	2,991
400	4,800	320	340	880	945	2,400	28,800	1,920	2,400	1,920	2,031	2,031	2,500	2,031	3,700	44,400	2,960	3,071
450	5,400	360	382	960	1,020	2,500	30,000	2,000	2,500	2,000	2,111	2,111	2,600	2,111	3,800	45,600	3,040	3,151
500	6,000	400	425	1,040	1,105	2,600	31,200	2,080	2,600	2,080	2,191	2,191	2,700	2,191	3,900	46,800	3,120	3,231
550	6,600	440	467	1,120	1,190	2,700	32,400	2,160	2,700	2,160	2,271	2,271	2,800	2,271	4,000	48,000	3,200	3,311
600	7,200	480	510	1,200	1,275	2,800	33,600	2,240	2,800	2,240	2,351	2,351	2,900	2,351	4,100	49,200	3,280	3,391

The Indian Civil Service.

In the early years of the eighteenth century the East India Company was still little more than a body of traders. The genesis of the Indian Civil Service is to be sought in the modifications which the Company underwent as it found itself year by year more involved in the government of the country with which it was trading. It was gradually realised that neither the pay nor the training of the Writers, Factors and Merchants of the Company was adequate to the administrative work which they were called on to perform. As a result this work was often indifferently done and corruption was rife. To Lord Cornwallis is due the credit of having reorganised the administrative branch of the Company's service in accordance with three main principles from which there has been hitherto no deviation. These were that every civil servant should covenant neither to engage in trade nor to receive presents that the Company on their side should provide salaries sufficiently handsome to remove the temptation to supplement them by illegitimate means and that in order that the best men might be attracted the principal administrative posts under the Council should be reserved for members of the Covenanted Civil Service as it was called. The first of these principles is embodied not only in the covenant which every member of the service still has to sign on appointment, but also in the Government Servants Conduct Rules which are applicable to every civil department however recruited. As regards the second the scale of salaries originally prescribed was so handsome that it has not yet been considered expedient to undertake any general revision of it. The list of reserved posts remains too much the same as in 1783 though certain modifications have been introduced to meet Indian aspirations.

At first nominations to the service were made by the Directors, but this right was withdrawn by Act of Parliament in 1858 and since 1855 appointments have been open to public competition, all natural born subjects of the Crown being eligible. The age limits and other conditions of examination have varied considerably from time to time but at present candidates are examined between the ages of 22 and 24. At first young officers were sent straight to their appointments on recruitment but in 1809 Lord Wellesley established a college at Fort William for their preliminary training. This was not a success and in 1806 a college at Haileybury was substituted and for 53 years nominees underwent a two years training there before proceeding to India. At present a year's course at a British University is prescribed, and at the close of this year there is a further examination. Failure to pass this means final loss of appointment and seniority in the service is determined by combining the result of the open competition and this final compulsory examination.

The Statute of 1798 (83 Geo. cap. 52) modified in 1861 sets forth the list of offices reserved for members of the Indian Civil Service. It

includes among others the offices of secretaries and under-secretaries to governments, commissioners of revenue, Civil and Sessions Judges, Magistrates and Collectors* of Districts (in the regulation provinces) and Joint and assistant Magistrates and Collectors. In the non-regulation provinces many of the above posts are held by military officers. In addition to these reserved posts there are many other appointments which the Indian Civilian can hold. He is now however debarred from permanent appointment as Governor-General or Governor; the highest office he can attain being those of Lieutenant-Governor and Member of the Viceroy's Council.

Despite the complete eligibility of natives of India and despite the numbers of Indians who now seek their education in England comparatively few have succeeded in obtaining appointments by open competition. On the 1st of April 1913 only 46 of the 1319 civilians on the cadre were natives of India. In 1870 an important Act (33 Vict. cap. 33) was added to the statute book which allowed the appointment of natives of India of proved merit and ability to any of the offices reserved by law to members of the Covenanted Civil Service; such officers were known as Statutory or Uncovenanted Civilians. This method of appointment was dropped in 1880 and facilities were afforded to Indians for promotion through the ranks of the Provincial Service.

The young civilian on joining his appointment in India is attached to a district as assistant to the Collector. He is given limited magisterial powers and after passing examinations in the vernacular and in departmental matters he attains to full magisterial powers and holds charge of a revenue subdivision. During this period he is liable to be selected for the judicial branch and become an Assistant Judge. In course of time promotion occurs and he becomes either Collector and District Magistrate or District and Sessions Judge; this promotion does not generally occur before he has served for at least ten years. The District Judge is the principal civil tribunal of the district and wields extensive appellate powers. In his capacity as Sessions Judge he tries the more important criminal cases of the district.

The Collector is not merely chief magistrate and revenue officer of his district. He also forms a court of appeal from subordinate magistrates, supervises municipalities and local boards, is chief excise officer and district registrar and in general represents Government in the eyes of the people. The Collector and his assistants are expected to travel over their charges; touring rules vary in different provinces but in Bombay the Collector spends four and his assistants seven months in the year on tour.

By the time the highest grades in the office of Collector or Judge are reached the Civilian

* The Chief Revenue Officer of a District is known as the Collector in the regulation provinces of Bengal, Madras, Bombay, Agra, Deputy Commissioner and his assistants are

known as the Collector in the regulation and Bohar and Orissa. Elsewhere he is the Assistant Commissioner.

has, as a rule, nearly completed the 25 years which are necessary before he can retire. Should he elect to continue in service there are still posts to which he can look forward for promotion. On the one hand, he may become a Commissioner or even a Member of Council and on the other there are Judicial Commissionerships and seats on High Court Benches. Such is the normal career of a Civilian, but this by no means completes the account of his prospects, for nearly one-fourth of the service is as a rule employed in posts—some reserved and some not—out of the regular line. A number of Civilians are employed in the Imperial and Provincial Secretariats, some are in political employ in the Native States others hold responsible positions in the Customs, Police, Salt Post Office and other departments, or supervise big municipalities and public trusts.

The Civilian may retire after 25 years service and in the ordinary way must retire on reaching the age of 55. He contributes throughout his service to a pension which is fixed regardless of whether he has risen to be a Lieutenant Governor or has remained at the foot of the ladder. Every Civilian moreover married or single, subscribes to an annuity fund which provides for the widows and orphans of deceased members of the service.

Public Services Commission

In July 1912 it was announced that the King had been pleased to approve the appointment of a Royal Commission to examine and report upon the Public Services in India. The Royal Commission was constituted as follows—

Chairman—The Right Hon. Lord Islington K.C.M.G.

The Earl of Ronaldshay M.P.

Sir Murray Hammett K.C.S.I. C.I.E., Indian Civil Service

Sir Theodore Morison K.C.I.E., Member of the Council of India

Sir Valentine Chirol

Frank George Sly Esq. C.S.I. Indian Civil Service

Mahadev Bhaskar Chaudhary, Esq. C.S.I. Member of the Governor of Bombay's Executive Council.

Gopal Krishna Gokhale, Esq. C.I.E., Member of the Viceroy's Legislative Council

Walter Culey Madge, Esq. C.I.E., Member of the Viceroy's Legislative Council

Abdur Rahim, Esq. Judge of the Madras High Court

James Ramsay MacDonald, Esq. M.P.

Herbert Albert Laurens Fisher Esq. Fellow and Tutor of New College Oxford

The Terms of Reference were as follows—

To examine and report upon the following matters in connexion with the Indian Civil Service, and other civil services, Imperial and Provincial—

(1) The methods of recruitment and the systems of training and probation

(2) The conditions of service, salary leave, and pension

(3) Such limitations as still exist in the employment of non Europeans and the working of the existing system of division of services into Imperial and Provincial

and generally to consider the requirements of the Public Service and to recommend such changes as may seem expedient.

Work of the Commission.—The Royal Commission visited India in the cold weather of 1912-13 and toured extensively in India, including Burma, confining their attention mostly to hearing the evidence of and relating to the Indian Civil Service. They subsequently sat in London and in October 1913 again left for India to enquire into 23 Services other than the Indian Civil and the Provincial Services. They assembled first at Delhi on November 3rd, and examined Imperial officers and witnesses from the United Provinces the Punjab and the North West Frontier Province. They then assembled at Calcutta in the middle of December to hear witnesses from Bengal, Bihar and Orissa, and Burma.

Early in February the Royal Commission went to Madras, and completed the tour at Bombay where witnesses from Western India and the Central Provinces were heard.

The Commission returned to England in the spring of 1914, and has drawn up a report of which publication has been delayed on account of the war.

Temporary Provisions

In October 1915 a Bill was introduced into the House of Lords entitled An Act to enable Persons during the continuance of the War and for a period of two years thereafter to be appointed or admitted to the Indian Civil Service without examination. The following is the text of its provisions—(1) The Secretary of State in Council may with the advice and assistance of the Civil Service Commissioners make rules providing for the admission and appointment to the Indian Civil Service by the Secretary of State in Council during the continuance of the present war and for a period not exceeding two years thereafter of British subjects possessing such qualifications with respect to age and other wise as may be prescribed by the rules notwithstanding that they have not been certified as being entitled for appointment as the result of examination in accordance with the regulations and rules made under section thirty-two of the Government of India Act 1858 and section ninety-seven of the Government of India Act 1915. Provided that—(a) not less than one-fourth of the persons admitted to the Indian Civil Service during such period as aforesaid shall be persons who have been so certified as aforesaid and (b) a person shall not be appointed to the Indian Civil Service under the rule made under this section unless the Civil Service Commissioners certify that by such means as may be prescribed by the rules they have satisfied themselves that in their opinion he possesses the necessary educational qualifications.

The provisions as to the laying before Parliament of regulations and rules made under

the said sections thirty two and ninety seven shall apply to the rules made under this section.

This Act may be cited as the Indian Civil Service (Temporary Provisions) Act, 1915.

In the debate on the second reading of the Bill, Lord Islington explained that this was an emergency Bill introduced to meet the difficulties created by war conditions. Government asked Parliament to authorise the suspension of the statutory system of open competition on two grounds. They wished to prevent any deterioration in the class of officers to be recruited for the I.C.S. and they sought power to provide a method by which those who were fighting at the front should as far as possible be protected from losing their careers as Indian Civil Servants owing to their patriotic action. The Bill sought to secure those ends. Government was anxious that no injustice should be done to Indians and therefore contemplated that if with the examination of one fourth there was not as a result the same proportion of Indians successful as had been the case in former years that number would be made up by selection hereafter. Provision for this was to be included in the rules formulated to give effect to the Bill. In the debate which followed Lord Macdonnell argued that the

process of selection in the case of Indians could be far better carried out in India than in Whitehall. The work he said naturally fell within the functions of the Viceroy who could command the best information as to the relative merits of candidates and in India where the field of choice would be so much wider. Lord Islington argued in reply that the unsuccessful Indian candidates had a right to be considered. Lord Macdonnell further raised the question of the composition of the Selection Board and moved an amendment under which the board would consist of not more than nine members including the First Civil Service Commissioner a member of authority in public affairs and representatives of the Universities and the public schools. On the suggestion of Lord Sydenham he added that there should be at least one member with a knowledge of India. By an amended sub-section it has been provided that no person shall be appointed to the I.C.S. unless the Secretary of State acting with the advice of the Civil Service Commissioners is satisfied that he possesses the necessary educational qualification. The design is to check any arbitrary use of the powers of the Secretary of State and to prevent favouritism toward the unit.

THE INDIAN MEDICAL SERVICE

The Medical Service under the control of the Government of India consists of some seven hundred and sixty eight medical men recruited in England by competitive examination and has as its primary duty the care of the native troops and of the British Officers and their families attached to them. But in the course of rather more than a century and a half other duties and responsibilities have accrued to it, so that there are in addition the provision of medical aid to Civil Servants and their families, the administration of the civil hospitals of the large towns, and the supervision of the numerous small dispensaries provided either by the Government or private charity for the inhabitants of the larger villages. Moreover the Service provides for the sanitary control of large areas dealing with the sanitation of towns, protection of water supplies and the prevention of epidemic disease. It is also represented in the Native States by the Residency Surgeon and in Persia by the Medical Officers to the British Consulates. The Jail Department is also administered in great part by Indian Medical Officers generally in the dual capacity of Medical Officer and Superintendent, and up to quite recently the Officers in the Mint have been recruited from members of the medical profession. Lastly the Service provides the men who are engaged in original research on diseases of tropical importance at the Bacteriological Laboratories which have arisen in India during the last fifteen years, and others who as Professors at the large medical schools have had the task of creating an indigenous medical profession which will make permanent throughout the Indian Empire the overriding influence of Western Medicine. This remarkable combination of duties and responsibilities in a single Service has slowly

evolved from the system initiated in quite early days by the old East India Company of providing Chirurgeons from England on the nomination of the Board of Directors in London for the care of the people and soldiers in the Indian Factories and on the ships trading with the East. Besides these men the Company maintained several medical services including those of St. Helena the West Coast of Sumatra Prince of Wales Island and the China Coast. The Surgeons on the Company's Indiamen were frequently utilized for emergent work in India, as in the case of the Maratha War of 1760 and other military operations of that time for duty with troops and sometimes to fill vacancies occurring among those who would now be styled civil surgeons.

Organisation.—The Indian Medical Service practically dates from the year 1764 when the scattered medical officers serving in India were united into one body. Later this was divided into the three medical establishments of Bengal, Madras, and Bombay. In 1768 the Medical Service was divided into two branches military and civil the latter being regarded as primarily army medical officers, lent temporarily for civil duties, in which they formed a reserve for the Indian Army and were consequently liable to recall at any time. This position was confirmed by the Council of Lord Cornwallis in 1783 and has been in existence ever since with great advantage to the military authorities in times of military stress. In 1898, the officers of the Service were given military rank and since 1906 all the names have been borne on one list, though men on entering the service are allowed to elect a Presidency in which they will serve on entering the Civil Department.

The Service was thrown open to Indians by the India Act of 1858 the first competitive examination being held in January 1858, when the list was headed by a Bengalee student who subsequently attained distinction. It was calculated by Lt.-Col. Crawford, I.M.S. (the talented historian of the Service) that from January 1858 to the end of 1910, eighty nine men of pure Indian extraction had entered the Service. The proportion now shows signs of yearly increase. The total number of Indians at present in the Service is a little more than five per cent. of the whole while, of the successful candidates during the past five years, 17.6 per cent. have been men born and bred in the country.

Method of Entry.—Entrance into the Service is now determined on the results of competitive examinations held twice a year in London the Regulations regarding which and the rates of pay rules for promotion and pension relating thereto may be obtained on application to the Military Secretary at the India Office. Candidates must be natural born subjects of His Majesty of European or East Indian descent, of sound bodily health, and in the opinion of the Secretary of State for India in Council, in all respects suitable to hold commissions in the Indian Medical Service. They may be married or unmarried. They must possess, under the Medical Acts in force at the time of their appointment a qualification registrable in Great Britain and Ireland. No candidate will be permitted to compete more than three times. Candidates for the January examination in each year must be between 21 and 28 years of age on the 1st February in that year and candidates for the July examination must be between 21 and 28 years of age on the 1st August.

The candidate will be examined by the Examining Board in the following subjects, and the highest number of marks obtainable will be distributed as follows:—

(1) Medicine including Therapeutics	1 200 Marks
(2) Surgery including diseases of the eye	1 200 "
(3) Applied Anatomy and Physiology	600 "
(4) Pathology and Bacteriology	900 "
(5) Midwifery and Diseases of Women and Children	600 "
(6) Materia Medica, Pharmacology and Toxicology	600 "

N.B.—The Examination in Medicine and Surgery will be in part practical, and will include operations on the dead body the application of surgical apparatus and the examination of medical and surgical patients at the bedside.

Having gained a place at the entrance examination the successful candidates will be commissioned as Lieutenants on probation, and will be granted about a month's leave. They will then be required to attend two successive courses of two months each at the Royal Army Medical College, and at Aldershot respectively.

Officers appointed to the Indian Medical Service will be placed on one list, their position on it being determined by the combined results of the preliminary and final examination. They will be liable for military employment in any part of India, but with a view to future transfers to civil employment, they will stand posted to one of the following civil areas:—(1) Madras and Burma, (2) Bombay with Aden, (3) Upper Provinces &c. United Provinces, Punjab and Central Provinces, (4) Lower Provinces &c., Bengal Bihar and Orissa and Assam.

The allocation of officers to these areas of employment will be determined upon a consideration of all the circumstances including as far as possible the candidate's own wishes.

The whole course lasts for four months after which the duly gassed Lieutenants proceed to India and for the first year of their service are attached to native regiments in any part of the country. The doctor is an officer of the regiment, as was the case in the old days of the Army Medical Department. Of late years it has been proposed to form the members of the service into a corps on the lines of the British Medical Service by forming station hospitals for native troops, thereby releasing the doctor from regimental life. This reform appears to have fallen through for the present, but is likely to be brought into operation within a very few years. Several appointments in the Civil Department are now reserved for Indians recruited in the country.

Organisation.—The Head of the Service is the Director General, who is an official of the Government of India and its adviser on medical matters. He is also concerned with questions of promotion of officers to administrative rank and of the selection of men for admission to the civil department. Attached to his office and under his general supervision is the Sanitary Commissioner with the Government of India, who is to have the control of the new Sanitary Service a department which is undergoing enlargement and re-arrangement. In each Presidency or Province there is a local head of the civil medical service and medical adviser of the local administration who is either a Surgeon General or an Inspector of Civil Hospitals of the rank of Colonel. The medical service in each province consists of the Sanitary Branch and the purely professional. The former is composed of Sanitary Commissioners of Districts, who by keeping large tracts of country under observation are in a position to advise their respective governments of the existence of epidemics, and on the proper methods of dealing with them and of preventing their spread. It is, however, through the Civil Surgeon that the visitor to India will come in contact with the Service. This official is something more than a general medical and surgical authority in a large district consisting of a million or more of souls. Owing to the varied experience obtained in India by the members of the Civil Medical Department, this official is generally a man of the highest professional attainments, especially so in the case of those senior men holding appointments in the larger towns. His duties are to give

medical aid to the civil servants and treat families, and to administer the hospital which has been provided by Government in each headquarter town. In many cases too he will have the additional charge of the local jail, and be the Sanitary Adviser of the Municipality. Accustomed to meet the most serious emergencies of his profession and to rely entirely on his own skill and judgment, the Civil Surgeon in India has given to the Indian Medical Service a reputation for professional efficiency which cannot be excelled by any other public medical service. Travellers in India falling sick within call of any of the larger towns can, therefore, rely on obtaining the highest professional skill in the shape of the ordinary Civil Surgeon of the I. M. S. There have lately been signs that the popularity of the medical service of India is waning in the medical schools of the United Kingdom and consequently there is a suspicion that a class of man is now entering it of a somewhat lower type than that which has made the Service famous.

A Parliamentary Paper containing correspondence between the Government of India and the Secretary of State, on the promotion of an independent medical profession in India and the possibility of limiting or reducing the cadre of the Indian Medical Service, was published during 1914. Writing in 1910 the Government of India said that it was impracticable to make any reduction in the number of Indian Medical Service officers employed solely on civil duties, that is to say, those not

belonging to the war reserve. An independent profession trained on western lines was growing up in India but had to overcome its universal rival in the shape of *Ashums* and others trained in indigenous methods. Government could do much to encourage the growth of this profession by making provision for the registration of medical practitioners qualified according to western methods. The Secretary of State, replying in November 1912, said that he was unable to contemplate any substantial reduction in the Indian Medical Service. As for the independent profession, he trusted that the experience of the working of the Bombay Registration Act might justify the introduction of similar legislation for other Provinces. He considered that the Indian Medical Service should be restricted to the military needs of the country both on account of economy and in order to increase as far as possible the number of important posts held by Indians. He was prepared to consider each new appointment on its merits, but any proposal for an increase in the civil posts included in the cadre of the Indian Medical Service would be subjected to the closest scrutiny. In reply to that despatch, the Government of India wrote in March, 1914 — In view of the growing medical needs of the country which necessitate the employment of a larger staff of medical officers, some expansion of the Indian Medical Service is inevitable, and such expansion should not, in our opinion, be regarded from a different standpoint from the enlargement of any other cadre in response to the development of the work to be performed.

Pay and Allowances—The following are the monthly rates of Indian pay drawn by officers of the Indian Medical Service when employed on the military side —

Rank	Unemployed Pay	Grade Pay	Staff Pay	In Official Medical Charge of a Regiment	In Permanent Medical Charge of a Regiment
	Rs.	Rs.	Rs.	Rs.	Rs.
Lieutenant	420	350	150	425	500
Captain	475	400	150	475	550
after 5 years service	475	450	150	525	600
after 7 years service		500	150	575	650
after 10 years service		550	150	625	700
Major		650	150	725	800
after 3 years service as Major		750	150	825	900
Lieutenant-Colonel		900	350	1,075	1,250
after 25 years service		900	400	1,100	1,300
specially selected for increased pay		1,000	400	1,200	1,400

Pensions and Half Pay—Officers are allowed to retire on pension on completing 17 years service, the amount they receive varying with the precise number of years they have served. The lowest rate for 17 years service is £300 per annum, and the rate for 30 years £700 per annum. The increases in pension for each additional year's service over 17 are somewhat higher in the last 5 than in the first 8 of the 18 years between the shortest and longest periods of pensionable service. All officers of the rank of lieutenant colonel and major are placed on the retired list on attaining the age of 55 years the greatest age to which any officer can serve being 62.

Principal Civil Appointments	Approximate Number of Appointments in each Class	Salary per Mensem			
		When held by a Lieutenant Colonel	When held by a Major	When held by Captain	When held by Lieutenant
		Rs	Rs	Rs.	Rs
Inspectors General of Civil Hospitals	6	2,250-2,500			
Sanitary Commissioner with Government of India	1	2,000-2,500			
Inspectors-General of Prisons	8	1,500-2,000			
Principals of Medical Colleges	6	1,650-1,800	1,200-1,800		
Professional Appointments	32	1,000-1,050	1,050-1,150	800-950	750
Sanitary Commissioners	8	1,250-1,800	for all ranks		
Deputy Sanitary Commissioners	18	1,450-1,600	1,000-1,100	750-900	700
Bacteriological Appointments	11	1,600-1,600	1,050-1,150	700-900	650
Superintendents of Central Lunatic Asylums	6	1,400-1,550	1,050-1,150	700-900	650
Superintendents of Central Gaols	81	1,300-1,350	850-1,050	600-850	550-650
Civil Surgeoncies (First Class)	37	1,800-1,450	850-950	600-750	550
Civil Surgeoncies (Second Class)	171	1,200-1,850	750-850	500-650	450
Probationary Chemical Examiner	1			600-750	550
Officers deputed to Plague Duty	20	1,450	1,000-1,100	750-900	700

Pilot Services

Appointments to the Bengal Pilot Service are made by the Secretary of State for India and by the Government of Bengal the latter appointments are limited to Anglo Indians and Eurasians and are made under separate regulations. In the case of appointments made by the Secretary of State, preference is given *ceteris paribus* to candidates who have passed through one of the training ships " Worcester and Conway.

Candidates for the Secretary of State's ap-

pointments must not be less than 18 and not more than 22 years of age. They must produce a Board of Trade or Colonial Certificate of Competency as a Second Mate, or any higher grade for a foreign going ship and evidence of having served at sea not less than two years in a square-rigged sailing vessel of over 300 tons. The rates of pay and allowances of Leadsman Apprentices while on duty are as follows without exchange compensation allowance—

When on the running list—

	Rs.
Junior Leadsman	107 a month
Second Mate Leadsman	130 a month
First Mate Leadsman	160 a month

Plus 50 per cent of the lead money collected from the ships on which they do duty.

When employed as Chief and Second Officer—
Chief Officers of pilot vessels Rs. 160 a month

As Second Officers of pilot vessels
Rs. 135 a month

Plus a mess allowance of Rs. 40 a month

After five years service a Leadsman Apprentice is allowed to appear at an examination to qualify him for appointment as Mate Pilot but if he shows exceptional ability and has passed each previous examination on his first attempt, bears a very good character and is otherwise well reported on this period may with the special sanction of Government be reduced to 4½ years. After three years' service as Mate Pilot, he is permitted to go up for an examination to qualify for appointment as Master Pilot, and if successful is promoted to that grade on the occurrence of a vacancy. Vacancies which occur in the grade of Branch Pilot are filled by promotion from the Master Pilot grade of men who have passed the Branch Pilot's examination. If the Local Government has reason to believe that a Pilot is owing to physical infirmity of any kind incapable of discharging his duties properly, it arranges for his medical examination and takes such action as may seem desirable when the results of that examination are communicated. In particular Pilots are medically examined after the occurrence of an accident to the vessel in their pilotage charge if the circumstances tend to show that the accident was in any way attributable to physical infirmities on the part of the Pilot.

Pilots are not entitled to any salary while on pilotage duty but receive as their remuneration a share, at present 50 per cent but liable to alteration at the discretion of the Government of Bengal of the pilotage dues paid by ships piloted by them. The Government of Bengal reserves to itself the right to require all Pilots to obtain a Home Trade Master Mariner's Certificate before they are promoted to be Senior Master Pilots. Every member of the Pilot Service is subject to such rules as the Government of India or as the Government of Bengal under the control of the Government of India, may from time to

time respectively make in regard to discipline, leave leave allowances, number of officers in the service, distribution into grades, tonnage of ships to be allotted to the several grades etc. and in all respects he is amenable to such orders as may be passed by the Government of Bengal and is liable to degradation, suspension and dismissal by the Government of Bengal for any breach of such rules or orders, or for misconduct.

Other Pilot Services.—Bengal is the only province that has a covenanted pilot service elsewhere pilotage is under the control of the local Port Trust. In Bombay for example the Port Trust have drawn up the following rules for entry into the service—

To be eligible for admission to the Bombay Pilot Service candidates must be British subjects and at least 21 years of age but not more than 32. They must hold certificates of competency as Master and excellent testimonials as regards conduct, character and ability. They will be examined in the Port Office for form and colour vision as prescribed by the Board of Trade and also an extra form vision test of each eye separately and must undergo an examination by and produce a certificate from the Medical Officer appointed by the Port Trustees that they are physically fit, and are of a sufficiently heavy or strong constitution to perform a Pilot's duty and that they to all appearance enjoy good health. Any Probationer may with the sanction of the Port Officer go before the Examining Committee and if he passes he will be eligible for appointment as a 3rd Grade Pilot when a vacancy occurs. A Probationer not passing the required examination to qualify for performing a Pilot's duties within six months after the date of his appointment is liable to be struck off the list. Promotion to the various grades in the Pilot service is generally given by seniority but the Port Trustees reserve to themselves the right of passing over any Pilot. There are 18 Pilots, six in each grade who are paid according to the number of vessels piloted. The average pay of a 1st Grade Pilot is about Rs. 850 2nd Grade about Rs. 750 and 3rd Grade about Rs. 650.

The Indian National Congress.

BY D. R. WACHA

The Congress was practically founded in 1885 by the late Mr Allan Octavian Hume, a retired member of the Indian Civil Service and the son of the distinguished Joseph Hume, M.P., whose radicalism is so well known and who was one of the chief advocates of Retrenchment and Reform in the House of Commons in the forties and fifties. Mr Hume had a distinguished career in the service. In his younger days when Collector and Magistrate at Etawah, he had rendered invaluable service in quelling the Mutiny in its incipient stage. For this service he was created a Civil Companion of the Bath, a rare honour in those days for a young Anglo Indian Civil Servant. He retired from the service in 1883 after having honourably filled several high offices the last of which was the Home Secretaryship of the Government of India. The policy of Lord Lytton's Government (1878-80) had aroused discontent in the country. The imposition of the Vernacular Press Act, commonly known as the Black Act, and the uncalculated for hostilities with the Amir Sher Ali of Afghanistan which culminated in the Second Afghan War were the subject of much adverse criticism among the most moderate but enlightened Indians in all parts of the country. It was recognised in all quarters that the people should organise themselves by way of a conference to ventilate their grievances. Correspondence was passing among the Indian leaders of thought in the different provinces as to the formation of such a conference on a sound and permanent footing. The vicereignty of Lord Ripon (1880-84) gave the necessary stimulus and encouragement. Thus by 1883, when Mr Hume retired the idea of the Conference had so far taken body and form that, with the sympathetic support of Mr Hume, a Union was established after he had in 1883 the genuine support of many sterling friends of India in Parliament especially John Bright and Mr Stagg. Mr Hume had been a silent but watchful observer of events and felt that he must give his active support to the movement, his heart being fully prepared to ameliorate the social, economical and political condition of the Indians. He was in close communication with the leaders in various provinces. Here it may also be worth while recording the fact that during the preliminary stage of the inception of the Congress, Mr Hume, who had retired to Simla, had had the opportunity of consulting Lord Dufferin on the subject and it is a fact that his Lordship was at one with the object and greatly encouraged Mr Hume in his mission. Subsequently after 1888 his Lordship, for reasons of his own which have never been authoritatively declared chose to assume a hostile attitude toward the organisation but it was effectually met by the speech which Mr George Yale made in December 1888 at the Congress of Allahabad.

First Session

Progress was so far made as to formulate the programme of a first meeting in Poona which at the time was the seat of great political activity. The Christmas week of 1885 was reserved upon for the inauguration of the Con-

ference. Unfortunately when the preparations were being made cholera broke out in the City of Poona and it was deemed unsafe to invite delegates there. Accordingly the seat of the first assembly was hurriedly transferred to Bombay under the auspices of the Bombay Presidency Association with its then active honorary secretaries, Messrs Pherozshah M. Mehta, Kashinath Trimburk Telang and Dinsha Edulji Wacha. It was at the same time resolved to christen it 'The Indian National Congress', having regard to the fact that its principal aim was faithfully to echo the public opinion of all India. So many misleading statements were made during the earliest years of the Congress as to its aims and objects that it may be useful to relate what they are as laid down by Mr Hume himself in a speech he made at Allahabad in 1888 on the eve of the session of the Fourth Congress at that centre. Firstly he prefaced his enumeration of the objects by stating that no movement in modern historical times has ever acquired in so short a period, such an appreciable hold on the minds of India, none has ever promised such wide reaching and beneficent results. Further on it was observed that the Congress movement is only one outcome though at the moment the most prominent and tangible of the labours of a body of cultured men mostly born natives of India, who some years ago banded themselves together to labour silently for the good of India. As to the fundamental principles of the Congress they are—

Firstly, the fusion into one national whole of all the different and discordant elements that constitute the population of India.

Secondly the gradual regeneration along all lines, mental moral social and political of the nation thus evolved and

Thirdly the consolidation of union between England and India by securing the modification of such of the conditions as may be unjust or injurious to the latter country.

The Split.

It was on the fundamental principles above stated that the Congress carried out its appointed work amidst much misrepresentation obloquy and even abuse till 1907 when an extreme faction of delegates deliberately chose to raise a split in the united camp. At the Congress held in Surat in that year the session had to be abandoned owing to the violent outbreak of the factional spirit of those who since have been known as Extremists, in contrast with the overwhelming majority of those entertaining sober views who are called Moderates. But if the proceedings were for the time abandoned, it was not without the leading men immediately organising themselves on the spot to take ways and means for the holding of future congresses and for the purpose of framing a written constitution of which the most important part was the creed of the Congress. In other words the written aims and objects of the Congress were reduced to writing in a crystallised form. As such it may

be repeated here as it should dispel all doubts, misgivings or misunderstandings of the true aims and objects of the Congress.

The objects of the Indian National Congress are the attainment by the people of India of a system of Government similar to that enjoyed by the self-governing members of the British Empire and a participation by them in the rights and responsibilities of the Empire on equal terms with those members. These objects are to be achieved by constitutional means by bringing about a steady reform of the existing system of administration and by promoting national unity fostering public spirit and developing and organising the intellectual, moral, economic and industrial resources of the country.

Every delegate to the National Congress is obliged by the Congress Committee of the province from which he is sent to express in writing his acceptance of the above creed and his willingness to abide by the Constitution and the rules framed under it.

The Constitution.

This Constitution has been in full working order since 1908. It is unalterable save by a Resolution of a majority in Congress assembled. It provides a guiding or directing staff of chosen leaders selected by each province and annually confirmed from the platform of the Congress by the President Ex-President Secretaries and other office-bearers are nominated *ex-officio* members and the whole Committee is known by the name of the All India Congress Committee. The provinces are the same as the territorial divisions of the Government of India. The Committee of each Province is called the Provincial Congress Committee on whom devolves the duty, under the constitution and the rules of calling meetings for the election of delegates, suggesting subjects to be brought forward for the consideration of the Congress and all cognate matters. The Congress declares each year at the close of the session where the next Congress is to be held. The town or city where it is to be held begins to make all preparations fully six months before the date of the holding of the session which has hitherto invariably been during the three days immediately preceding Christmas Day. That period is specially selected owing to the great convenience it affords to all classes of delegates in the country to attend—a convenience not offered at any other time during a year. A Reception Committee is formed with a leading person as its Chairman. That Committee divides its work among various sub-committees such as finance, correspondence, housing, feeding and so on. A band of active young persons volunteer to serve the different sub-committees. Formerly they were chiefly selected from among the student class but owing to the orders of Government in the Education Department that students should take no active part in politics, volunteers are now wholly recruited from the circle of men of business or profession. They are well disciplined and have to obey the orders of their chief or captain. They have a heavy duty to discharge during the active session, besides receiving delegates from various

centres on railway platforms and taking them down to their appointed lodgings. Volunteers are also posted among delegates to carry their messages or do such other work as may be needed. Thus they discharge honorably a very important service with enthusiasm and alacrity and in a way learn discipline and the spirit of self-sacrifice. In his concluding address a President invariably makes honourable mention of the services of these Congress volunteers. The hardest work of a sub-committee consists of erecting the pendal or marquee for the holding of the Congress. Apart from the delegates who generally number from 500 as a minimum to 1,000 or so as a maximum there is always a large number of visitors. So that the pendal is erected to contain at least 5,000 seats. There have been some notable Congresses when the number seated has come to as many as 10,000. That was the number which congregated in Bombay in 1889 when Sir William Wedderburn presided and was accompanied from London by the late Mr. Charles Bradlaugh who afterwards introduced the first Reform Bill of the expanded Legislative Councils in Parliament in 1890. Delegates had had to pay a fee of Rs. 50 for attendance up till 1912 but the fee has since been reduced to Rs. 15. They are charged a very moderate fee for the days they are lodged and boarded. Some well-to-do delegates hire bungalows at their own expense but the majority of delegates outside those of the province where a Congress is held generally accept Congress accommodation which in smaller towns becomes a very serious and uphill task indeed. The supply of chairs and other paraphernalia is also a heavy task, but they all under take it cheerfully as a matter of duty.

A Session.

The spectacular effect of a large gathering in a capital town like Bombay or Calcutta or Madras is exceedingly pleasing, while the audience is invariably well behaved. During the five hours a day of each of the three days proceedings, the stranger viewing the Congress, whether he is accommodated on the dais or the visitors gallery can hear every word of a good speaker. And generally the pavilion is carefully erected so as to allow the voice of the speaker to reach every part of it. Care also is taken that there are as many ingress and egresses as possible. A special gallery is generally reserved for purdah ladies who now-a-days are keen to attend the Congress and watch its deliberations. Congress expenses at the very lowest estimate come to between Rs. 25,000 and Rs. 30,000 per annum. The funds are collected (a) from donations of wealthy sympathisers of the Congress Movement in the province where the Congress is held, (b) from delegation fees half of which is shared by the London organisation of the Congress known as the British Congress Committee and (c) from issue of visitors tickets. All expenses come out of these funds. There is rarely a balance left, sometimes there is a deficiency. The Reception Committee as soon as convenient, issues a full report of the three days proceedings of the Congress together with a list of the delegates who attended. For a few years an industrial exhibition was opened in

connection with the Congress which is the parent of the Industrial Conference. They were all very successful the most notable being the one held in Bombay on the occasion of the Congress Meeting there in 1904.

The most important function of the Reception Committee under the Constitution is to elicit the opinion of the different Provincial Congress Committees as to the selection of a capibus President, a well known Congressman who has taken an active part from year to year in the work of the Congress, not only on the Congress platform but in his own part of the country by way of propagating the aims and objects of the Congress and educating the people. The Provincial Committees are enjoined to send the names of the person or persons whom they would select say by the end of September of each year to the Reception Committee of the place where the Congress is to be held. The name selected by the majority of that committee is accepted and is announced to all centres. The President elect receives official intimation of his selection and thereafter begins to prepare his Address reviewing the principal political events of the year and suggesting what important resolutions the Congress should pass. The President is always the honoured guest of the Reception Committee who provide a suitable lodging for him and cater for his comfort and convenience. He is waited upon by two or four volunteers who deem it a personal honour to have so waited on him. On his arrival he is generally received with an ovation and a public demonstration in the form of a procession. There have been distinguished presidents who have been so conveyed to their destination amidst the most enthusiastic cheers of the population, men, women and children.

On the opening day the President reaches the dais accompanied and followed by the Congress officers namely the General Secretaries, the Secretaries and Chairmen of the Reception Committee and the ex Presidents who may be attending the Congress. As soon as they are seated, a gong is heard to announce the commencement of the sessions. The Chairman of the Reception Committee begins the proceedings by welcoming the delegates and touching upon the peculiarities of his city and on some provincial and other problems. Immediately thereafter the President is formally installed in the chair in terms of the Constitution. The chief proposer generally introduces him to the audience in a brief speech commencing what he is and what he has done for the country. Next the President rises in his place amidst cheers and applause. Generally the speech is written and printed. It is read, the reading generally occupying an hour and a half. He surveys the prevailing political situation, echoes Indian public opinion as expressed in the various organs during the year on problems of administration and winds up with recommendations and suggestions for further reforms.

On the conclusion of the address a Subjects Committee from among the delegates is selected and announced from the Chair. Within half an hour or an hour at the most the Sub-

jects Committee meet in a secluded part of the hotel, strangers and delegates not on the Subjects Committee are requested to withdraw. The President becomes ex-officio the chairman of the Subjects Committee. Then they discuss the most important topics needing resolutions to be passed the following day. Here you see Congress delegates earnestly at their work. It is a kind of select committee of the House of Commons. Debaters most eloquent debaters, are often to the fore and make short speeches. A draft resolution is brewed, backed and eventually knocked into shape, votes being always taken by a show of hands, and the chairman announcing the ayes or the noes as the case may be. In this way generally half a dozen important resolutions are passed. It is the duty of the Congress Secretaries to see that they immediately go to the press and are ready after correction and revision for the next day's session at noon. The general duration of a Subjects Committee for two days in succession is fully three hours. Sometimes disputed or exceedingly controversial matters prolong it by another hour. Thus it will be seen that the real solid work of a Congress session is done at the meetings of the Subjects Committee which contains the pick of the delegates attending a Congress.

The proceedings of the session in open Congress are regulated by the rules of order and procedure adopted under the constitution. Amendments are permitted to any delegate provided he gives notice to the President on the dais during the course of the particular resolution which may be moved. Votes by a show of hands are taken for and against. There are rules for special voting but these are rarely invoked the fact being that harmony generally prevails owing to the merits of a resolution having been fully threshed out at the Subjects Committee meeting. The principal speakers and supporters are all selected by the Subjects Committee but a President may permit a speaker not named in the agenda. Generally speaking the speeches are mediocre. Rhetoric is absent save in some cases. There is ample eloquence and nine tenths of the speeches are all extensions of course the speakers preparing their principal observations beforehand. But what is known as manuscript eloquence is exceedingly rare. At the close of the proceedings generally on the evening of the third day the President is voted thanks and he makes a suitable reply. The session is then dissolved after the customary announcement of the next place where it is to be held.

Results.

Of the oldest class of Congress men say since its institution in 1885 there are a few only say the Hon. Mr. Surendranath Banerji, the Hon. Mr. M. M. Malaviya, the Hon. Mr. Ganga Prasad Varma, Mr. D. B. Wacha, Mr. P. N. Mudholkar, Mr. D. A. Kharas and a few others. The composition of the Congress undergoes a change every few years. Looking back at the quarter of a century and more, it must be acknowledged that on the whole the Congress has done good solid work for the greater progress of the people. In reality it is a body of 'Advanced Liberals' as Lord Lansdowne

called it when he was Viceroy in India. As such its programme is always for Liberal reforms. It cannot be gainsaid that the two reforms between 1885 and 1909 for the Legislative Councils are principally owing to the continuous vigorous agitation of the Congress. The first reform took place in 1892 but it was discovered in a few years that the popular elective representation was inadequate that there was no free discussion of the budget on the principle of taxation and representation, and that the privilege of interpellation given in 1892, needed improvement and expansion. The Morley Minto Reforms are entirely owing to the initiation and subsequent agitation of the Congress. It was also owing to the same organisation that the salt duty has eventually been reduced from 2½ to 1½ per maund. The higher limit of exemption from the income tax was also recommended by the Congress. It uniformly advocated the importance of the construction of irrigation works in preference to railways. Its strictures on the past management of famine relief have been instrumental in bringing the Famine Relief arrangements almost to perfection. It is, again almost wholly owing to Congress agitation that education of all kinds, especially primary and technical, have undergone an unprecedented development. Mahatma owes its present condition partly to the Congress. The hardships involved in the original drastic codes on excise and forests have been somewhat mitigated by reason of the earnest prayers of the Congress. Land revenue assessments have received continual attention from the Congress which is more or less in favour of a settlement as near to permanency as possible. But the voice of the Congress is still crying in the wilderness as far as simultaneous examinations and the separation of judicial and executive functions are concerned. Its agitation is constant and persistent. Its appeals on behalf of Indians in South Africa and elsewhere have always been earnest and accompanied by moderation. On currency problems it has hitherto failed to see eye to eye with the State. In short it may be correctly said that a fairly large number of grievances of the people which the Congress has voiced during the last 28 years have been redressed. The principal planks of its platform for some time are a great extension of the employment of Indians in the higher offices of the administration in reference to which the Public Services Commission has taken evidence, retrenchment of military expenditure, fiscal independence, notably in the matter of the excise duty on indigenous cotton manufactures, reform in the administration of criminal justice in which is included the separation of judicial from executive functions, and the equal privilege of Indians as citizens of the British Empire in all parts of His Majesty's Dominions.

British Committee.

It may be observed in conclusion that the Congress has an organisation also in London which is called the British Committee of the Congress. It is furnished with funds provided by the Indian National Congress. It has an establishment of its own and attached to it though with independent income, an organ of opinion called India which echoes the salient events of what may have happened every week in India. As such it performs useful service. It is well informed and is liberally circulated among members of Parliament who sympathise with Indian aspirations or take interest in the general progress and welfare of India. The Committee consists of retired Anglo-Indians and has been for years presided over by that well wisher and disinterested friend of India, Sir William Wedderburn, who was twice elected President of the Congress. The Committee invariably invites distinguished or leading Indians when in London to take part in its deliberations. The Committee itself is in constant touch with all proceedings in the House of Commons on Indian affairs and often helps members to put questions when needed. Some years ago it formed a standing committee of members of the House of Commons and an attempt is about to be made to revive it. The Committee also keeps itself in communication with the India Office and often acts as a vehicle of conveying Indian opinion to the Secretary of State. As such the organisation renders valuable service to Indian cause in England. The 1915-16 session held in Bombay under the presidency of Sir S. P. Sinha, one time Law Member of the Viceroy's Executive Council, was largely attended and the proceedings were marked by much enthusiasm. The President whilst recognising that a reasoned ideal, the self-government within the Empire, was necessary in order to still the pain in the soul of awakening India, ranked himself with those who saw that the path thither would be long and wearisome. The Congress embodied its political aspirations in the following resolution:—(a) the introduction of Provincial autonomy including financial independence; (b) expansion and reform of the Legislative Councils so as to make them truly and adequately representative of all sections of the people and to give them effective control over the act of the executive government; (c) the re-constitution of the various existing executive councils and the establishment of similar executive councils in provinces where they do not exist; (d) the reform or the abolition of the Council of the Secretary of State for India; (e) establishment of Legislative Councils in provinces where they do not now exist; (f) the readjustment of the relations between the Secretary of State for India and the Government of India; and (g) a liberal measure of local self-government.

The Moslem League.

The Indian Moslem League was established in 1906. Prior to that time the Indian Moslems had stood aloof from politics. Acting under the guidance of the greatest man they have produced, Sir Syed Ahmed, they devoted their attention to education, founding the Aligarh College with the special purpose of making up the leeway of Mahomedans in education, and left politics to the other Indian peoples. A few Mahomedans joined the National Congress and took part in its annual sessions, but the community as a whole stood aside from political movements.

In 1906 however changes occurred which impelled Indian Moslems to action. Under the Act of 1892, constituting the Indian Legislative Councils there was no specific Moslem representation and in the elections which had taken place under that Act the Moslems had for all practical purposes failed to find selection. Therefore, when the amendment of the Act and the extension of the representative principle were under discussion they were stirred to action. They feared lest under an academic system, adapted only to a homogeneous people, their distinct communal interests would either secure no representation at all, or only inadequate representation. They therefore took counsel together and approached the Viceroy in deputation, headed by His Highness the Aga Khan and presented their views in an important State paper. In this they laid stress on their position in the following passage—

'Representative institutions of the European type are new to the Indian people—many of the most thoughtful members of our community in fact, consider that the greatest care, forethought, and caution will be necessary if they are to be successfully adapted to the social, religious and political conditions obtaining in India—and that in the absence of such care and caution their adoption is likely amongst other evils, to place our national interests at the disposal of an unrepresentative majority.'

Feeling that the Mahomedans were a distinct community and that their interests had suffered because they had been under-represented, the deputation asked for representation on a communal basis and for representation in excess of their actual numerical strength or account of the peculiar and historical position of the Moslem community. This request was accepted, and the Imperial and Provincial Councils embodied the principle of Mahomedan representation on a communal basis.

First Constitution

It was felt that in view of the changed conditions the Moslems should organise their own political society for the expression of their communal policy. This was the origin of the Moslem League. The rules and regulations of the League provided for a constitution with provincial branches, and defined the objects of the League in the following language—

The objects of the League shall be—

(a) to promote among Indian Mussulmans feelings of loyalty towards the British Government, and to remove any misconceptions

that may arise as to the intentions of Government with regard to any of its measures

(b) to protect the political and other rights and interests of Indian Mussulmans and to place their needs and aspirations before the Government in temperate language

(c) without prejudice to the objects mentioned under (a) and (b) of this section to promote so far as possible concord and harmony between the Mussulmans and other communities of India.

Revised Constitution

In 1912 and 1913 Moslem opinion as expressed by the League underwent a certain change. First at a meeting of the Council, afterwards at the annual session which was held at Lucknow the constitution was amended so as to include in the objects of the League the attainment of a system of self-government in India under the Crown. The objects of the League, as defined in the most recent publication, are thus set forth—

The objects of the League shall be—
(a) to maintain and promote among the people of this country feelings of loyalty towards the British Crown

(b) to protect and advance the political and other rights and interests of the Indian Mussulmans

(c) to promote friendship and union between the Mussulmans and other communities of India

(d) without detriment to the foregoing objects attainment under the rule of the British Crown of a system of self-government suitable to India, through constitutional means, by bringing about, amongst others, a steady reform of the existing system of administration by promoting national unity by fostering public spirit among the people of India and by co-operating with other communities for the said purposes

This change in the constitution of the League produced much discussion and was opposed by many of the older men who had led the community.

London Branch

There is a branch of the Moslem League in London of which the Right Hon. Syed Amir Ali is President. In the autumn of 1913 the London office bearers resigned, as the result of differences of opinion with two Indian Moslems who were visiting England, Mr. Mahomed Ali and Mr. Vasser Khan, the honorary secretary of the League. Syed Amir Ali thus described the nature of these differences:—an endeavour to capture the organisation here and to impose on it their own will. To both of these attempts I was, in the interests of the Mussulman community bound to take strong objection. In response to strong pressure from the Provincial Leagues in India, the London office bearers resumed their posts and the London Branch of the League continues under the former personnel. The headquarters of the League are at Lucknow.

The annual session of the League was not held in 1914, as it was thought that the season was one for co-operation not for criticism.

The Press.

The newspaper Press in India is an essentially English institution and was introduced soon after the task of organizing the administration was seriously taken in hand by the English in Bengal. In 1773 was passed the Regulating Act creating the Governor General and the Supreme Court in Bengal and within seven years at the end of the same decade, the first newspaper was started in Calcutta by an Englishman in January 1780. Exactly a century and a third has elapsed since not a very long period certainly a period almost measured by the life of a single newspaper *The Times* which came into existence only five years later in 1785 but then the period of British supremacy is not much longer having commenced at Plassey only twenty three years earlier. Bombay followed Calcutta closely and Madras did not lag much behind. In 1789 the first Bombay newspaper appeared. *The Bombay Herald* followed next year by *The Bombay Courier*, a paper now represented by the *Times of India* with which it was amalgamated in 1861. In Bombay the advent of the press may be said to have followed the British occupation of the island much later than was the case in Calcutta. In Calcutta the English were on sufferance before Plassey but in Bombay they were absolute masters after 1666 and it is somewhat strange that no Englishman should have thought of starting a newspaper during all those hundred and twenty five years before the actual advent of *The Herald*.

The first newspaper was called *The Bengal Gazette* which is better known from the name of its founder as *Hicky's Gazette or Journal*. Hicky like most pioneers had to suffer for his enterprising spirit though the fault was entirely his own, as he made his paper a medium of publishing gross scandal and he and his journal disappeared from public view in 1792. Several journals rapidly followed Hicky's, though they did not fortunately copy its bad example. *The Indian Gazette* had a career of over half a century when in 1833 it was merged into the *Bengal Harkara* which came into existence only a little later and both are now represented by *The Indian Daily News* with which they were amalgamated in 1866. No fewer than five papers followed in as many years the *Bengal Gazette* of 1780 and one of these *The Calcutta Gazette* started in February 1784 under the avowed patronage of Government flourishes still as the official gazette of the Bengal Government.

From its commencement the press was jealously watched by the authorities who put serious restraints upon its independence and pursued a policy of discouragement and rigorous control. Government objected to news of apparently the most trivial character affecting its servants. From 1791 to 1799 several editors were deported to Europe without trial and on short notice whilst several more were censured and had to apologise. At the commencement of the rule of Wellesley Government promulgated stringent rules for the public press and instituted an official censor to whom everything was to be submitted before publication, the penalty for offending against these rules to be immediate deportation. These

regulations continued in force till the time of the Marquis of Hastings who in 1818 abolished the censorship and substituted milder rules.

This change proved beneficial to the status of the press, for henceforward self-respecting and able men began slowly but steadily to join the ranks of journalism which had till then been considered a low profession. Sirik Buckingham one of the ablest and best known of Anglo-Indian journalists of those days availed himself of this comparative freedom to criticise the authorities and under the short administration of Adam a civilian who temporarily occupied Hastings's place, he was deported under rules specially passed. But Lord Amherst and still more Lord William Bentinck were persons of broad and liberal views and under them the press was left practically free though there existed certain regulations which were not enforced though Lord Clive who was Governor of Bombay from 1831 to 1833 one strongly but in vain urged the latter to enforce them. Metcalfe who succeeded for a brief period Bentinck removed even these regulations and brought about what is called the emancipation of the press in India in 1835 which was the beginning of a new era in the history of the Indian press. Among papers that came into being was the *Bombay Times* which was started towards the close of 1838 by the leading merchants of Bombay and which in 1861 changed its name to the *Times of India*. *The Bombay Gazette* founded in 1811 ceased publication in 1914.

The liberal spirit in which Lord Hastings had begun to deal with the press led not only to the improvement in the tone and status of the Anglo-Indian press but also to the rise of the Native or Indian Press. The first newspaper in any Indian language was the *Samachar Darpan* started by the famous Srampore Missionaries Ward, Carey and Marshman in 1818 in Bengal and it received encouragement from Hastings who allowed it to circulate through the post office at one-fourth the usual rates. This was followed in 1822 by a purely native paper in Bombay called the *Bombay Samachar* which still exists and thus was laid the foundation of the Native Indian Press which at the present day is by far the largest part of the press in India numbering over 650 papers.

From 1835 to the Mutiny the press spread to other cities like Delhi, Agra, Gwalior and ven Lahore whereas formerly it was chiefly confined to the Presidency towns. During the Mutiny its freedom had to be temporarily controlled by the Censoring Act which came into force in June 1857 on account of the license of a very few papers and owing still more to the fears of its circulating intelligence which might be prejudicial to public interests. The Act was passed only for a year at the end of which the press was once more free.

On India passing to the Crown in 1858 an era of prosperity and progress opened for the whole country in which the press participated. There were 10 Anglo-Indian papers at the beginning of this period in 1858 and 25 Native papers and the circulation of all was very small. The number of the former did not show a great rise in the next generation but the rise in in

fluence and also circulation was satisfactory. Famous journalists like Robert Knight, James Maclean and Hurris Mookerji flourished in this generation. The *Civil and Military Gazette* was originally published in Simla as a weekly paper, the first issue being dated June 22nd, 1872. Prior to and in the days of the Mutiny the most famous paper in Northern India was the *Mofussil* originally published at Meerut but afterwards at Agra and then at Ambala. After a lively existence for a few years in Simla the *Civil and Military Gazette* acquired and incorporated the *Mofussil*, and in 1876 the office of the paper was transferred from Simla to Lahore and the *Gazette* began to be published daily. During Lord Lytton's viceroyalty a reactionary policy was pursued towards the vernacular press which was restrained by a special Act passed in 1878. With the advent of Lord Ripon in 1880 the Press Act of Lytton was repealed in 1882. The influence of the native press especially grew to be very great, and its circulation too received a great fillip. This may be said to have gone on till 1897 when India entered upon a disastrous cycle of years during which plague and famine gave rise to grave political dis-

content which found exaggerated expression in the native press, both in the vernacular and in English. The deterioration in the tone of a section of the press became accentuated as years went on and prosecutions for sedition had little effect in checking the sinister influence.

In 1910 Lord Minto passed a Press Act applicable not like Lytton's Act, to the present part alone but like Canning's measure, to the entire press. This measure is having the desired effect inasmuch as it has undoubtedly checked seditious writing in all the provinces where it had previously been most rife. One marked effect of the Act has been to increase the influence and circulation of the moderate papers. There is some tendency as in Eastern Bengal to evade the Act by the secret production and dissemination of seditious leaflets. A Parliamentary White Paper published at the end of 1914 gives a return of statements showing the action taken under certain sections of the 1910 Act. It shows that of twenty two printing presses coming under the first demand for security found on failed to deposit the security and were in consequence closed. Of twenty newspapers treated in the same manner fourteen ceased publication.

Number of Printing Presses at Work and Number of Newspapers Periodicals and Books Published

Province	Printing Presses	Newspapers	Periodicals	Books	
				In English or other European Languages	In Indian Languages (Vernacular and Classical) or in more than one Language
Bengal	604	106	107	421	219
Bihar and Orissa	121	19	24	7	389
United Provinces	497	152	121	376	144
Punjab (including Delhi)	206	74	51	111	1421
North West Frontier Province	33	2	1		
Burma	147	54	50	22	117
Central Provinces and Berar	74	13	15	7	104
Assam	41	10	4	3	41
Khyber Pakhtunkhwa	1	2			10
Coorg	1		1		
Madras	600	9	1815	571	1887
Bombay	447	144	306	107	1685
Total, 1912-13	2,828	673	2,307	1,662	9,651
Totals	1911-12	2,740	656	2,268	1,566
	1910-11	2,761	649	1,902	1,578
	1909-10	2,730	728	820	1,112
	1908-9	2,534	738	897	1,687
	1907-8	2,571	75	1,062	1,524
	1906-7	2,490	741	973	1,589
	1905-6	2,380	74	793	1,411
	1904-5	2,252	571	747	1,321
	1903-4	2,139	709	719	1,294

Newspapers and News Agencies registered under the Press Rules and arranged alphabetically according to Station where they are published and situated.

NOTE.—News Agencies are distinguished by an asterisk

Stations.	Title in full	Day of going to Press.
Agra	Kayastha Hirkari	1st 8th, 16th, and 24th of every month
	Ahmedabad Samachar	Every day
	Coronation Advertiser	Wednesdays
	Gujarati Punch	Sundays.
Ahmedabad	Jaina Samachar	Sundays.
	Kathilawar and Mahikantha Gazette.	Saturdays.
	Political Bhomiyo	Thursdays.
	Praja Bandhu	Saturdays.
	Rajasthan	Fridays.
Ajmer	Rajasthan Samachar	Thursdays
Akota, Berar	Berar Samachar	Sundays.
Akyab	Araikan Times	Mondays and Thursdays
	Araikan News	Tuesdays and Fridays.
Allgarh	Allgarh Institute Gazette	Wednesdays.
	Abhyudaya	Fridays
Allahabad	Hindustan Review	On first of every month
	Leader	Daily except Tuesdays.
	Pointer	Daily
	Router's Telegram Company Ltd	
Amraoti	Kartavya	Tuesdays.
	Pramod Sindhu	Mondays.
	Veer Shalo Sanjeevinee	Mondays.
Amroli	Islam Gazette	Thursdays
Amroha	Itihad	Saturdays.
Bagehat	Jagaran	Sundays.
Bangalore	Daily Post	Daily
	Army and Civil News	Daily
	Kasim ul Akhbar	Mondays and Thursdays.
Bankipore	Behar Bhandu	Fridays.
	Behar Herald	Saturdays.
	Beharee	Daily
	Kypress	Tuesdays Thursdays and Saturdays.
Barisal	Barisal Hitalshi	Sundays.
Baroda	Shree Sayaji Vijaya	Thursdays
Basmeln, Burma	Basmeln News	Tuesdays and Fridays.
Batticaloa (Ceylon)	Lamp	Every other Saturday
Belgaum	Belgaum Samachar	Mondays.
Benares City	Awazul Khalk	Every Wednesday
	Bharat Jwan	Sundays.
	Indian Student	27th of each month.
Bhavnagar	Jainbhawan	Tuesdays
Bihar (Patna)	Itihad	Wednesdays.
Bijapur	Karnatak Valbhav	Saturdays.

Stations	Title in full	Date of going to Press.
Bombay	<p>Advocate of India Akhbar-i-Islam Akhbar-i-Soudagar Andhra Patrika Argus Associated Press Bombay Chronicle Bombay Guardian Bombay Samachar Briton Catholic Examiner Gujarati Illustrated Sporting Review Indian Industries and Power Indian Investors' Referee Indian Social Reformer Indian Spectator Indian Spectator and the Voice of India Indu Prakash Jaina Jama-e-Jamshed Kaiser-i-Hind Muslim Herald Muslim Times Native Opinion O Anglo-Indian The Parsi Railway Times Rast-Gofar Renter's Indian Journal Renter's Telegram Company Ltd Sanj Vartaman Shri Venkateshwar Samachar Times of India Times of India Illustrated Weekly Young India United Press Syndicate</p>	<p>Daily Daily Daily except on Sundays Wednesdays. Sundays. Daily except Saturday Evening and Sunday Morning. Fridays Daily Daily except Saturdays Thursdays. Saturdays Saturdays On the 15th of each month. Fridays Saturdays Fridays. Fridays. Daily except Sundays. Saturdays Daily except Saturdays. Saturdays & Daily except Sundays Fridays. Tuesdays. Saturdays. Saturdays. Fridays. Sundays Daily Daily except Sundays. Fridays Daily Wednesdays Weekly</p>
Bowringpet Budaon	<p>Kolar Gold Fields News Akhbar Zulqarnain</p>	<p>Tuesdays 6th, 13th, 20th and 27th of every month</p>
Calcutta (Goa)	<p>A Vox do Povo Al Hlal Amrita Bazar Patrika Asian Associated Press Bangabasi Bengaloe Bharata Mitra Calcutta Intelligence Syndicate Capital Catholic Herald of India Dainik Hitabadi Empire (Calcutta Evening News) Englishman Habshi Malin Handicap Hindoo Patriot Hitabadi Indian and Eastern Engineer Indian Daily News Indian Echo Indian Empire Indian Engineering Indian Express</p>	<p>Saturdays. Daily Daily Fridays. Wednesdays. Daily except Sundays. Thursdays Thursdays. Tuesdays Daily except Wednesdays Daily except Sundays. Daily Daily except Sundays. Fridays Daily except Saturdays. Wednesdays. 14th of each month. Daily except Sundays Fridays. Wednesdays and Saturdays Thursdays. Once a month.</p>

Stations	Title in full	Day of going to Press
Calcutta	Indian Methodist Times	Last day of month
	Indian Mirror	Daily
	Indian Nation	Saturdays.
	Indian News Agency	
	Indian Planter's Gazette	Saturdays
	Indian Public Health	15th of each month
	Indo-British Press Agency	
	Muscatman	Thursdays
	Railways and Shipping Reas and Bayyot Renter's Telegram Company Limited	2nd and 16th day of every month. Saturdays
	Sanjibani	Wednesdays
Calicut	Samaaj	Wednesdays
	Statesman	Daily except Sundays
	Times of India Illustrated Weekly	Wednesdays
Cawnpore	United Press Syndicate*	
	Manorama	Fridays
	Kerala Sanchari	Wednesdays
Chennai	West Coast Reformer	Sundays and Thursdays
	West Coast Spectator	Wednesdays and Saturdays
	Asad Renter's Telegram Company Li imited	Wednesdays
Chennai Chittagong	Zamana	20th day of every month
	Education Gazette	Tuesdays
Cochin	Jyoti	Wednesdays
	Cochin Argus	Saturdays
Colombo	Malabar Herald	Saturdays
	Ceylon Catholic Messenger	Tuesdays and Fridays
	Ceylon Independent	Daily
	Ceylon Morning Leader	Daily
	Ceylon Observer	Daily
	Ceylon Sportsman	Saturdays
	Ceylonese	Daily
	Dinakara Prakash	Mondays, Tuesdays, Thursdays and Saturdays
	Dinamina	Daily except Sundays
	Dravida Mitran	Wednesdays and Saturdays.
	Islam Mitthiran	Saturdays
	Nanartha Pradipava	Mondays and Thursdays.
	Sarasavi Sandaresa	Tuesdays and Fridays
	Rihala Samaya	Mondays and Thursdays
	Sinhala Bauddhaya	Saturdays
	Times of Ceylon	Daily
Cottam Cuttack Cuttack	Hitavarta	Wednesdays
	Utkal Deepika	Fridays
	Nihari	Mondays
Dacca	Associated Press*	
	Dacca Gazette	Mondays.
	Dacca Prakash	Sundays.
	East Herald	Thursdays and Sundays Daily

Stations	Title in full	Date of going to Press
Darjeeling	Darjeeling Visitor and Advertiser	Mondays
Delli	Associated Press	
	Durbar Bulletin	Daily
	Hamdard	Daily
	Indian News Agency	
Dharwar	Morning Post	Daily except Sundays
	Pioneer Supplement	Daily
	Dharwarvritti	Wednesdays
Dharwar	Karnataka Patra	Fridays
	Karnatakavritta and Dhananjaya	Tuesdays
Dhulia	Kahema Samachar	Thursdays
	Khandesh Vaibhav	Fridays
Dibrugarh	Times of Assam	Fridays
Gaya	Kayastha Messenger	Sundays
	Deshabhimani	Daily
	Kannad Kesari	Fridays
Hyderabad Deccan	Munshier i Deccan	Daily
	Sahifa-i Rozana	Daily
	Usman Gazette	Daily
Hyderabad Sind	Sind Journal	Wednesdays.
	Munshir	Saturdays
	Prabhat	Tuesdays and Fridays
Jaffna	Ceylon Patriot and Weekly Advertiser	Tuesdays.
	Jaffna Catholic Guardian	Saturday Mornings.
Jaffna (Vannarponnai)	Hindu Organ	Wednesdays.
Jubbulpore.	India Sunday School Journal	Third Thursday of every month
	Jubbulpore Post	Fridays
Kankhal	Karachi Argus	Wednesdays.
	Karachi Chronicle	Saturdays
	Parisi Bansaer	Saturdays
Karachi	Praya Mitra	Tuesdays and Fridays.
	Phoenix	Tuesdays and Fridays.
	Reuter's Telegram Company Limited.	
Karachi	Daily Gazette	Daily except Sundays.
	Sind Observer	Wednesdays and Saturdays
	Sind Sudhar	Saturdays
Khulna	Star of India	saturdays
	Khulna Basi	Saturdays
Kolhapur City	Vidyavilas	Fridays
Kottayam	Malayala Manorama	Wednesdays and Saturdays.
	Nazrani Deepika	Tuesdays.
Kurnnegala	Abhinawa Kawata Angana	Days prior to the 1st and 15th of every month

Stations.	Title in full	Day of going to Press.
Lahore	Akhbar i Am Arya Patrika Associated Press Civil and Military Gazette Dosh	Daily Saturdays Daily (Sundays excepted) Daily
	Hindu Hindustan Paisa Akhbar Punjabee	Tuesdays. Wednesdays. Daily Tuesdays, Thursdays and Sator days.
	Punjab Observer Punjab Samachar Rajput Gazette	Wednesdays and Saturdays Fridays. 1st, 8th 16th and 24th of every month Saturday
	Sind Patrika Reuter's Telegram Company Limited Tribune Watan	Daily except Sundays. Thursdays.
	Khairkhab Larkana Gazette	Saturdays. Fridays.
Larkana	Advocate Anand Indian Daily Telegraph	Wednesdays and Saturdays Thursdays Daily
Lucknow	Kantab-i Hind Kayastha Mutual Family Pension Fund News.	Wednesdays 16th day of every month
	Muslim Gazette Oudh Akhbar Al-Maxmun	Tuesdays Daily except Sundays On the first of every month
Madras	Andhra Patrika Anglo-Indian	Tuesdays. Thursdays
	Associated Press Hindu—See against Mount Road	
	Indian Patriot Indian Railway Journal	Daily 15th of every month
	Jarida-i Roxgar Law Times	Saturdays Saturdays.
	Madras Mail New India	Daily Daily
	Madras Times Mohammedan	Daily except Saturdays. Mondays and Thursdays.
	Mukhbhar i Deccan Reuter's Telegram Company Limited	Wednesdays
Madras	Shamul Akhbar	Mondays.
Madras	South Indian Mail Futuro	Mondays. Daily
Margao (Goa)	Noticias Ultramar	Mondays. Mondays and Fridays.

Stations.	Title in full.	Day of going to Press.
Matheran Mattancheri	Matheran Jottings Chakravartii	Tuesdays and Fridays. Saturdays.
Mirpurkhas	{ Mirpurkhas Gazette Zaminder Gazette	Wednesdays Thursdays
Mirzapur City	{ Khichri Samachar Al Musher	Saturdays 4th 11th 18th 25th of every month.
Moradabad	{ Colonel Meston News Sitara i Hind	1st 8th, 16th and 24th of every month 4th 12th, 20th and 28th of every month 4th 12th 20th and 28th of every month
Moulmein	Moulmein Advertiser	Tuesdays, Thursdays and Saturdays
Mount Road, Madras	Hindu	Daily except Sundays
Musoorie	{ Echo Musoorie Times	Fridays. Thursdays
Muttra Muvattupuzha Myzussingh Nagercoil	Intakilliner Kerala Dheepika Tharu Mithur Travancore Times	7th of each month Fridays. Tuesdays Tuesdays
Nagpur	{ Nagpur and Berar Times Decha-Bewak	Fridays Mondays.
Nasvati	Independent	Saturdays
Nova Goa	{ Boletim do Comercio O Comercio Odebate Heraldo O Heraldo	Wednesdays Daily Mondays. Daily except Mondays Daily except Sundays and holidays
Ootacamund	South of India Observer and Village News.	Daily issue except Sundays.
Pandharpur	Pandhari Mitra	Sundays
Panjim Goa Pen	O Oriente Sudhakar	Saturdays. Fridays.
Peshawar	{ Afghan Reuter's Telegram Company Limited Deccan Herald Dyana Prakash Kesari Maharatta	Daily Daily Daily, except Mondays. Tuesdays Sundays
Poona	{ Pandit Poona Mail Poona Observer Sudharak or Reformer	Daily and weekly on Wednesdays. Daily. Daily Mondays.

Stations	Title in full	Day of going to Press
Quetta	Baluchistan Gazette	Wednesdays and Saturdays.
Quilon	Malayali	Wednesdays and Saturdays
Rajkot	Kathlawar Times	Wednesdays and Sundays
Rangoon	Burma Sunday Times Rangoon Gazette	Sundays. Daily except Mondays
	Rangoon Times	Daily except Sundays
Ratanagiri	Bakool	Saturdays
	Satya Shodhak	Sundays
Rawalpindi	Punjab Times	Saturdays and Wednesdays
Qatar	Shubha Suchaka	Fridays
Qatar City	Prakash	Wednesdays
Secunderabad	Hyderabad Bulletin	Daily
	Notice Sheet	Daily
Shahjahanpur	Sarpunch	Daily
Shikarpur (Sind)	Trade Advertiser (Waper Samachar)	Saturdays
Shillong	Aasan Advertiser	Fridays
Sholapur	Kalpataru	Sundays
	Sholapur Samachar	Tuesdays
	Associated Press Indian News Agency	
Sindia	Indian War Cry	27th of each month
	News of India	Wednesdays
Sindia	Pioneer Daily Bulletin	Week days
	Reuter's Telegram Company Limited	
Sinkur	Sindhi	Saturdays
Surat	Apakshapata	Saturdays
	Deeshi Mitra	Thursdays
	Gujrat Mitra and Gujarati arpan	Saturdays
Surat	Praja Pokar	Wednesdays
	Surat Akhbar	Sundays
Sylhet	Paridamaka	Wednesdays
Tamiluk	Tamilika	Saturdays
Tanigali	Islam Rabi	Fridays
Thana	Arunodaya	Sundays
Trichur	Lokaprasaasam	Mondays
Trivalla	Kerala Taraka	Wednesdays
Trivandrum	Western Star	Tuesdays, Thursdays, and Saturdays.
Vizagapatam	East Coast News and Advertiser	Weekly
Wai	Modavritta	Mondays
	Vrikasaz	Mondays
Yeastmal	Harikishore	Sundays

INDIAN PRESS LAW

The Newspapers (Incitements to Offences) Act, 1908 was passed in view of the close connexion between the perpetration of outrages by means of explosives and the publication of criminal incitements in certain newspapers. The Act deals only with incitements to murder to offences under the Explosive Substances Act 1908 and to acts of violence. It gives power in such cases to confiscate the printing press used in the production of the newspaper and to stop the lawful issue of the newspaper. The procedure adopted in the Act follows the general lines of that provided in the Code of Criminal Procedure for dealing with public nuisances with the addition that the final order of the magistrate directing the forfeiture of the press is appealable to the High Court within 15 days. It is further provided that no action can be taken against a press save on the application of a Local Government. When an order of forfeiture has been made by the magistrate but only in that case the Local Government is empowered to annul the declaration made by the printer and publisher of the newspaper under the Press and Registration of Books Act, 1867 and thereafter neither that newspaper nor any other which is the same in substance can be published without a breach of the law.

The Indian Press Act 1910 was a measure of wider scope, the main object of which was to ensure that the Indian press generally should be kept within the limits of legitimate discussion.

The Act deals, not only with incitements to murder and acts of violence but also with other specified classes of published matter including any words or signs tending to seduce soldiers or sailors from their allegiance or duty to bring into hatred or contempt the British Government any Native Prince or any section of His Majesty's subjects in India, or to intimidate public servants or private individuals.

The different sections of the Act have in view (i) control over presses and means of publication (ii) control over publishers of newspapers (iii) control over the importation into British India and the transmission by the post of objectionable matter (iv) the suppression of seditious or objectionable newspapers books or other documents wherever found.

As regards the first of these objects it is laid down that proprietors of printing presses making a declaration for the first time under section 4 of the Press and Registration of Books

Act, 1867 shall give security which may, however be dispensed with by the magistrate at his discretion that the proprietors of presses established before the passing of the Act may similarly be required to give security if and when they are guilty of printing objectionable matter of the description to which the Act applies and that where security has been deposited, Local Governments may declare such security forfeit where it appears to them that the press has been used for printing or publishing such objectionable matter. When the initial security so deposited has thus been forfeited the deposit of further security in a larger sum is required before a fresh declaration can be made under section 4 of the Press and Registration of Books Act and if thereafter the press is again used for printing or publishing objectionable matter the further security deposited and the press itself may be declared forfeit.

Control over publishers of newspapers the second main object of the Act is provided for in a similar manner. The keeping of a printing press and the publishing of a newspaper without depositing security when required are punishable with the penalties prescribed for failure to make the declarations required by sections 4 and 5 of the Press and Registration of Books Act 1867.

Other provisions deal with the cases of books or pamphlets printed out of India or secretly in India. The more efficient control over the importation and transmission by post of objectionable matter of the kind described in the Act is given by empowering the customs and post office authorities to detain and examine packages suspected of containing such matter and to submit them for the orders of the Local Government.

The fourth object of the Act is attained by authorising the Local Government to declare forfeit any newspaper book or other document which appears to it to contain matter of the prohibited description and upon such a declaration the Act empowers the police to seize such articles and to search for the same.

In any case in which an order of forfeiture is passed by the Local Government an application may be made to the High Court on the question of fact whether the matter objected to is or is not of the nature described in the Act. For the most part the object of the Act has been secured as regards the local press without recourse to the power of confiscating security.

Societies : Literary, Scientific and Social.

AGRICULTURAL AND HORTICULTURAL SOCIETY OF INDIA (Calcutta).—Founded 1820. Annual subscription Rs. 32. Entrance fee Rs. 8. Secretary, F. H. Abbott 17 Allpore Road, Allpore.

AGRI-HORTICULTURAL SOCIETY OF BURMA.—Secretary Capt W. H. Allen Victoria Park Kandawgay.

AGRI-HORTICULTURAL SOCIETY OF MADRAS.—Established 1838. Quarterly subscription for members in Class A Rs. 7 in Class B Rs. 3. Secretary, P. F. Fyson Mount Road, Teynampett, S. W. Madras.

ANTHROPOLOGICAL SOCIETY OF BOMBAY.—Founded 1848 to promote the prosecution of Anthropological research in India to correspond with Anthropological Societies throughout the world to hold monthly meetings for reading and discussing papers and to publish a periodical journal containing the transactions of the Society. Annual subscription Rs. 10. Secretary, R. P. Masani M.A., Town Hall Bombay.

ARABIC SOCIETY OF BENGAL (Calcutta).—Secretary G. H. Tipper M.A., 57 Park Street, Calcutta.

BOMBAY ART SOCIETY.—Founded 1838 to promote and encourage Art by exhibitions of Pictures and Applied Arts, and to assist in the establishment and maintenance of a permanent gallery for Pictures and other works of Art. Annual exhibition every February. Annual subscription Rs. 10. Life Member Rs. 100. Secretary, Prof. O. V. Meier M.A., Elphinstone College Bombay.

BOMBAY BRANCH OF THE CLASSICAL ASSOCIATION.—The Classical Association was started in 1908 in London, to promote the development and maintain the well being of classical studies. The Bombay Branch was founded in 1910. It numbers 137 members holds 5 or 6 meetings a year and publishes a yearly journal. Subscription Rs. 6 for ordinary and Rs. 2-8-0 for associate members.

Secretary, Mrs. Gray 13 Marine Lines Bombay.

BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.—Founded 1804 to investigate and encourage Oriental Arts Sciences and Literature. Annual subscription Rs. 50. Secretary, Prof. G. Anderson, Town Hall, Bombay.

BOMBAY NATURAL HISTORY SOCIETY.—Founded 1883, to promote the study of Natural History in all its branches. The Society has a membership of about 1,700 and a small museum with a representative collection

of the different vertebrates and invertebrates found in the Indian Empire and Ceylon. A Journal is published quarterly which contains articles on different natural history subjects as well as descriptions of new species and local lists of different orders. In the more recent numbers serial articles on game birds common snakes and common butterflies have been appearing. Annual subscription Rs. 15. Entrance fee, Rs. 10. Honorary Secretary W. S. Millard, Curator N. B. Kinnear Office and Museum 6 Apollo Street, Bombay.

BRITISH AND FOREIGN BIBLE SOCIETY.—Since 1811 the British and Foreign Bible Society has been at work in this country. It has 6 Auxiliaries in India and an Agency in Burma. The first Auxiliary was established in Calcutta in 1811, then followed the Bombay Auxiliary in 1818, the Madras Auxiliary in 1820, the North India Auxiliary in 1845, the Punjab Auxiliary in 1863, the Bangalore Auxiliary in 1875, while the Burma Agency was founded in 1899. The Bible or some portion of it is now to be had in 80 different Indian languages and dialects and the circulation throughout India and Burma reached over 1,000,000 copies in 1913. The Bibles Testaments and Portions in the various vernaculars are sold at rates which the very poorest can pay, and at considerable loss to the Society. Grants of English Scriptures are made to Students who pass the various University examinations, whose applications are counter-signed by their Principals, as under—

The 4 Gospels and the Book of Acts in 1 Vol. to Matriculates.

The New Testament and Psalms to Intermediates.

The Bible to Graduates.

Last year no fewer than 9,000 volumes were so distributed. Portions of Scriptures in the important vernaculars have been prepared in raised type for the use of the Blind and large grants of money are annually given to the different Missions, to enable them to carry on Bible-women's work and Colportage.

Besides the British and Foreign Bible Society there is Bible work carried on in India, Assam and Burma in a much smaller way by the Bible Translation Society—which is connected with the Baptist Missionary Society—the American and Canadian Baptist Mission the National Bible Society of Scotland, and the Tranquebar Tamil Bible Society.

The following table shows the growth in the British & Foreign Bible Society's work during the past few years in India & Burma—

CIRCULATION OF THE B.F.B.S. IN INDIA.

Auxiliaries	1910	1912	1911	1910
Calcutta	154,758	191,809	127,964	123,599
Bombay	178,720	181,128	140,852	135,207
Madras	280,562	263,638	266,911	250,273
Bangalore	53,948	38,630	32,958	22,509
North India	186,650	212,011	186,911	143,581
Punjab	92,484	84,014	74,831	71,842
Burma	117,235	108,646	91,416	
Total copies of Scriptures	1,094,880	1,059,226	921,843	755,911

These returns do not include the copies which any Auxiliary has supplied to London or to other Auxiliaries and agencies during the year.

BOMBAY MEDICAL ASSOCIATION (Bombay Branch)—Founded 1866 to promote Medical and the Allied Sciences and the maintenance of the honour and interests of the Medical Profession. *Secretary* Dr D R. Bardol, Bombay

BOMBAY MEDICAL UNION—Founded 1883 to promote friendly intercourse and exchange of views and experiences between its members and to maintain the interest and status of the medical profession in Bombay. The entrance fee for Resident members Rs. 5 monthly subscription Rs. 2. Absent members Rs. 1 and non resident members yearly subscription Rs. 5. *President* Khan Bahadur Dr A H. Choksy *Secretaries* Dr D M. Gargat and Dr K K. Dadachanji. Dr M D D. Gilder. Hon. Librarian, Sir D M. Petit Medical Union Library. Hon. Treasurer, Dr V M. Banajkar. Readymoney Buildings, Apollo Bunder Bombay

BOMBAY SANITARY ASSOCIATION—Founded to create an educated public opinion with regard to sanitary matters in general (b) to diffuse the knowledge of sanitation and hygiene generally and of the prevention of the spread of disease amongst all classes of people by means of lectures, leaflets and practical demonstrations and if possible by holding classes and examinations (c) to promote sanitary science by giving prizes, rewards or medals to those who may by diligent application add to our knowledge in sanitary science by original research or otherwise (d) to arrange for homely talk or simple practical lectures for mothers and girls in the various localities and different chawls, provided the people in such localities or chawls give facilities. The Sanitary Institute Building in Princes Street, which has lately been built by the Association at a cost of nearly Rs 1,00,000 the foundation stone of which was laid by Lady Willington in March, 1914 and opened in March 1915 is a large and handsome structure with a large Lecture Hall Library Museum etc. and also provides accommodation for King George V Anti Tuberculosis League Dispensary and Museum and the Malaria Office and the Lady Willington Scheme. *Hon. Secretary* Dr J A. Turner. M.D. Municipal Health Officer Bombay

EUROPEAN ASSOCIATION—The European Association was established in 1888 under the title of the European and Anglo-Indian Defence Association and was re-established in 1912 under the title of the European Defence Association but the present title was adopted in 1913. The Association has for its objects the general protection of European interests and the promotion of European welfare. The Association numbers 4,870. The Head Office are at Grosvenor House Calcutta. *President* Mr L. P. E. Fugh. *Secretary* Mr Alec Marsh.

BRANCHES OF THE EUROPEAN ASSOCIATION
ABRAM VAILLEY, DIBRUGARH—*Chairman*, Mr B. A. Collie. *Secretary*, Mr V. D. Dordard.
INRA, MOSQUITUPPORE—*Chairman*, Mr V. N. Hickley. *C.I.E. Secretary* The Hon. Mr T. R. Fligate, C.I.E.

BOMBAY—*Chairman*, Mr L. H. Savla. *Secretary* Mr A. W. S. Wile.

DARJEELING—*Chairman*, Mr H. R. Irwin. *Secretary*, Mr G. Wingham Hardy.

DELHI—*Chairman*, Mr C. R. Bickley. *Secretary*, Mr R. E. Grant Govan.

DODAR JALPAIGURI—*Chairman*, Mr H. Child. *Secretary*, Mr J. M. Walker.

MADRAS—*Chairman*, The Hon. Mr J. O. Robinson. *Secretary*, Mr P. Holt.

PUNJAB LAHORE—*Chairman*, Mr W. Mulr. *Secretary*, Mr L. Saunders.

SIND KARACHI—*Chairman*, Mr J. I. Murray. *Secretary*, Mr B. D. Marshall.

SURMA VAILLEY SILCHAR—*Chairman*, Mr R. St. J. Hickman. *Secretary*, Mr R. St. J. Hickman.

UNITED PROVINCES CAWNPORE—*Chairman*, Mr A. B. Shakspeare. *C.I.E. Secretary*, Mr J. G. Ryan.

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE (Calcutta)—*Secretary*, Dr Amrita Lal Bhattacharya 210 Bow Bazar Street Calcutta.

INDIAN MATHEMATICAL SOCIETY founded in 1907 for the advancement of Mathematical studies in India. It conducts a bi-monthly journal in which papers on mathematical subjects are published and maintains a library with current mathematical periodicals in all languages and now books in the subject. The library is located in the Ferguson College, Poona whence the journals and books are circulated to members by post. The journal of the Society is published in Madras. There are about 150 members from all parts of India. *President* Diwan Bahadur B. Ramchandra Bow of Nellore Madras. *Secretaries* Prof D. D. Kapadia Poona and Prof M. T. Naranjangar Bangalore. *Librarian* Principal R. P. Paranjpye Poona.

INDIAN SOCIETY OF ORIENTAL ART (Calcutta)—*Joint Secs and Treasurers* N. Blount and B. C. Law P. O. Box No. 8 Calcutta.

INDIA SUNDAY SCHOOL UNION—The India Sunday School Union is a large indigenous interdenominational Society having the sympathy and Co-operation of the greater number of Missionary Societies in India. The great purposes of the Union are the promotion of systematic and careful Bible study, and the increased efficiency of Sunday School in India. Its operations extend beyond the borders of India itself to Arabia, Siam, Borneo and Assam. Upwards of 650,000 Sunday School scholars and teachers and 18,944 Sunday Schools are connected with the Union speaking 60 Vernaculars. One Central and 40 Provincial Committees control its Indian work which forms part of a world wide movement with a membership of 28,000,000.

The India Union was founded in Allahabad in 1878. Yearly examinations are held for both teachers and scholars in 81 centres, for which medals, prizes, scripture awards and certificates are granted to successful candidates, upwards of 20,000 entered these Exams for 1918. Notes on the daily portions of the Interdenominational Bible Reading Association are published by the I. S. S. U. in English and 14 Vernaculars, and 60 editions of the S. S.

Lesson Expositions are published in 20 Vernaculars. In addition there is a large publication of literature dealing with all phases of child study and moral and religious training. The monthly publication of the Union is the *India Sunday School Journal*. Two whole time and twenty four part-time missionaries are devoted to the work of the Union. The Teachers Training Department is under the care of Mr. R. A. Annett.

General Secretary of the Union the Rev. R. Burgess India Sunday School Union Office Jubbalpore

MADRAS FINE ARTS SOCIETY—*Secretary* Edgar Thurston Central Museum Madras

MADRAS LITERARY SOCIETY AND AUXILIARY OF THE ROYAL ASIATIC SOCIETY—*Secretary* W. F. Grahame 109 College Road, Nungambakum

PHILATELIC SOCIETY OF INDIA—Annual subscription Rs. 20 *Secretary* J. Godinho Girgaum Bombay

PHOTOGRAPHIC SOCIETY OF INDIA (Calcutta)—Annual subscription Rs. 24 (Town Members) and Rs. 10 (Mofussil members) Entrance fee Rs. 20 and Rs. 10 *Secretary* A. K. Taylor 40 Chowringhee Road Calcutta

RANGOON LITERARY SOCIETY—*Secretary* M. Hunter 18 York Road.

RANGOON MEDICAL AND DRAMATIC SOCIETY—Founded 1909 *Secretary* Miss E. West Dalhousie Street, Rangoon

SERVANTS OF INDIA SOCIETY—The Servants of India Society which was founded by the late Hon. ble Mr. Gopal Krishna Gokhale, C.I.E., in 1905 has its Head quarters in Poona and its objects are "to train national missionaries for the service of India and to promote, by all constitutional means the true interests of the Indian people. Its government is vested in the first member or President and a Council. On the death of Mr. Gokhale in February 1915 the Hon. ble Mr. V. S. Srinivasan Bastri was elected President. It has at present four branches, viz. (1) in Bombay (2) in Madras, (3) in the United Provinces (4) in Central Provinces. Each Branch consists of ordinary members, members under training and permanent assistants who work under the direction of a Senior Member. The branches engage both in propaganda and active work of political, educational, social, agricultural and philanthropic character. A fair idea of the work of a branch can be had from a brief description of the operations of the Bombay Branch whose members have so far undertaken activities in various fields: (1) Social purity like the Holika Sannam of Bombay (2) Social reform organization under the auspices of the National Social Conference (3) rousing public opinion about elementary education (4) promotion of the cause of elevation and education of Indian women by building up institutions like the Seva Sadan Poona Branch, (5) Social Service as carried out by the Social Service League of Bombay (6) spread of co-operative movement among the agriculturists, co-operators, and mill hands, (7) relief work connected with wide-spread calamities by organizing the Plague Relief Committee of

Poona which succeeded in making inoculation popular in the Deccan, the Saltmura Fire Relief Committee which arranged for the relief to sufferers for five years and by undertaking a scheme of non-official relief during the famines of 1907-08 and 1914 in the United Provinces, the famine in Gujarat and Kathiawar of 1911-12 and the famine of 1913 in the district of Ahmednagar (8) organising public opinion on the question of Indians in South Africa.

Quite recently the United Provinces Branch organised a band of volunteers who rendered assistance in a manner that drew general approbation to the pilgrims at the last Kumbha Mela in Hardwar. The Society engages in journalistic work also having in its control the *Harvard* an English weekly in Nagpur the *Dnyan Prakash* a Marathi daily in Poona and the *Hindustani* an Urdu weekly in Lucknow.

The expenses incurred by the Central Home of the Society in Poona and its four branches exceed Rs. 40,000 a year and this amount is made up by contributions from Indians rich as well as poor. The present number of workers enlisted by the Society is about 20 most of whom are University men of considerable standing.

SEVA SADAN—The Seva Sadan Society was started on the 11th of July 1908 by the late Mr. B. M. Malabari. It is the pioneer Indian ladies society for training Indian sisters ministrant and serving (through them) the poor, the sick and the distressed. The society has a habitation in Gamdevi, Bombay. One-half of the Building and Endowment Fund of Rs. 82,000 has been spent mainly in building at Gamdevi and partly in the purchase of two acres of land at Santa Cruz for a Sisters Home and other purposes.

The Society maintains the following institutions for training its probationers and for doing its other work: 1. A home for the Homeless. 2. An Industrial Home with various departments. 3. A Shelter for the distressed. 4. A Dispensary for Women and Children. 5. Ashrams (or Sisterhoods). 6. Free educational classes and a Library and Reading room. 7. A Work class and Home Classes in the quarters of the poor. All these are for the benefit of women. The Society has three branches, one at Poona and another at Ahmedabad and a third at Bangalore. The expenditure annually incurred is about Rs. 20,000. *Secretary* Miss B. A. Engineer M.A. LL.B. *President* Mrs. Ramabai Kanade *President Ahmedabad Branch* Lady Chinnubhai Madhavai *President Poona Branch* Mrs. Kanade *Trustees* Sister Sunilabai and the Hon. ble Mr. Lalubhai Samaldas *Trustee* Sir Narayan Chandavarkar *Sir Bhalechandra Krishna Sir V. D. Thackersey the Hon. Mr. G. K. Parekh and the Hon. Mr. Lalubhai Samaldas, C.I.E.*

CONSUMPTIVES HOME SOCIETY—This Society was started by the late Mr. B. M. Malabari on the 1st of June 1909. It was registered under Act XXI of 1860. It is an off-shoot of the Seva Sadan. Mr. Malabari secured a large grant of land in a Himalay area forest in Dharmpur (Simla Hills) from H. H. the Maharaja of Patiala, for a

Sanatorium for Consumptives. The Sanatorium was started on June 1 1909 and has been in existence ever since. Mr Malabari collected an Endowment Fund of about Rs 67 000 lodged with the Treasurer Charitable Endowments under Act VI of 1890. Nearly Rs 70 000 more have been spent on buildings etc and the current annual expenditure is about Rs 14 000. Dr Nanavati L.M. & S. and B.S. is in charge of the Sanatorium.

ROYAL SOCIETY OF ARTS INDIAN SECTION.—This Society was founded in London in the 18th Century. Its recently published history by Sir Henry Trueman Wood Secretary of the Society gives the following account of the Indian Section. In 1837 a proposition was made by Mr Hyde Clarke who wrote to the Council suggesting that a special section be formed for India, another for Australia, one for English America and so on. It was suggested that the Indian Section should meet once a fortnight for the reading of papers. Nothing came of the suggestion until ten years later when Mr Hyde Clarke returned to England, and in 1848 he renewed his proposal but only proposing the formation of a committee which should organise conferences on Indian subjects. This time the suggestion was taken up more warmly. Mr Hyde Clark himself was placed on the Council and the Indian Conference which soon developed into the Indian Section, were started. The Indian Section thus established became a most important department of the Society. It has had great results in India by spreading information as to the directions which the development of Indian manufactures and Indian products could most usefully take and in England by giving similar information as to the industrial resources and progress of India itself. The Section has received great help from the Indian press and it has in return been of service to the Indian press in supplying useful information to it. It has been of great value to the Society itself as the means by which many members have been added to its list so that in fact thanks to a very large extent to the work of the Indian Section and of the allied section for the Colonies a large proportion of the present number of members come from the dependencies of the Empire abroad. See *History* Sir H. T. Wood 16 John Street Adelphi London.

WEST OF INDIA ANGLING ASSOCIATION. Members of the Association who are still in India, the head-quarters of the Association have been moved to Bombay and it is hoped that with the late addition to the membership which may be expected really practical work may be undertaken as soon as funds are available.

It is proposed to commence the publication of a small Quarterly Journal at an early date which will be sent to all members free of cost and postage.

The Entrance Fee is Rs 20 and the Annual Subscription Rs. 20. *Patron* H. E. Lord Wellington. *President* E. Comber. *Hon. Secretary* G. B. Adamson. Forbes Building Home Street Bombay.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION IN INDIA, BURMA AND CEYLON.—This was started in India in an organized and National way in 1896. The aim of the Association is to meet the needs of the girls and women who live in India from an Intellectual, Spiritual, Social and Physical standpoint. This is done in many ways in the 180 Associations that now flourish under the auspices of the National Young Women's Christian Association. The Associations in the big cities have a large membership and include all classes of the community. Clubs, Classes, Lectures, Study Courses, Music, Languages, Bible and Mission Study, social intercourse and all kinds of physical recreation are carried on as need arises in these City Associations. Boarding Houses are established in all the principal cities where teachers, nurses, business girls, students, apprentices etc. can have a comfortable home with good wholesome food and congenial companionship for Rs. 20 or Rs. 30 per month. Travellers' Aid work is done and many travellers especially in the port cities, find accommodation as they pass through. A useful feature of the Association is the Holiday Homes that are conducted in the hills, where girls from the plains can find inexpensive accommodation and regain health and strength. Some of the homes accommodate as many as thirty six at one time and hundreds benefit during the season. The work of the Association in the large cities is managed by a staff of professional Y. W. C. A. Secretaries, who are fully trained and equipped to meet the many demands that are made on them. These Secretaries are supplied from America, Britain, Australia and India.

Many of the Associations are in small upcountry stations where a handful of members constitute the Branch led by some lady in the station who is glad of this opportunity for service. The members of these small stations may be transferred in the ever-changing life of India into the larger cities and then they learn in a fuller way what the Association can do to help them in an all round development. The National Headquarters are in Bombay where the greater part of the National Committee is stationed. The inter-denominational character of the Association is clearly kept in the forefront and ladies of many Christian denominations are on the Committee. The National Committee consists of twenty-five members resident and non-resident representative of Student and City Departments in various sections of the country.

The Officers are: Acting President Mrs. Kloe, Vice Presidents Mrs. F. J. Clark, Mrs. A. M. R. Dobson. Hon. Treasurer F. J. Clark, Acting National General Secretary Miss Florence B. Lang. The General Secretaries of the principal places are: Bombay Miss Wheelodon, Calcutta, Miss Rutherford, Colombo Miss Anderson, Rangoon Miss Hughes, Madras, Miss Downey, Bangalore, Miss Meager, Karachi, Miss O'Brien, Lahore, Miss Denison, Mussoorie, Miss Gregory, Simla, Secretary* Allahabad, "Secretary Lucknow Miss Davies.

The National Office is in the British Foreign and Bible Society Building, Hornby Road, Bombay.

The Official Organ of the Association is "The Young Women of India," which has a circulation of over 2,000 copies monthly.

YOUNG MEN'S CHRISTIAN ASSOCIATION—This Association which was founded by the late Sir George Williams on June 6 1844, seeks to unite those young men who regard Jesus Christ as their God and Saviour according to the Holy Scriptures desire to be His disciples in their doctrine and in their life, and to associate their efforts for the extension of His kingdom among young men. The above is known as the Paris Basis of the Young Men's Christian Associations and it is world wide. It was adopted at the first World's Convention in Paris in 1855 and re-affirmed at the Jubilee World's Convention in Paris in 1906. The aim of the Association is through its religious, educational, and physical work to cater for the threefold—spiritual, mental and physical—needs of young men and its policy is one of intense loyalty to the Church.

There are as a rule, two classes of members. Any young man who is a member in full communion of any Protestant Christian Church may be an active or voting member and any young man of good character may be an associate.

The Young Men's Christian Association though relatively new to India is spreading very rapidly. The local Associations are autonomous and governed by local Boards of Directors. These Associations, in convention elect a National Council of European and Indian laymen, who are responsible for the supervision and expansion of all forms of the Association work. Both the National Council and the local Associations employ specially trained full-time Secretaries. Over two-thirds of the Secretaries are supported from funds raised in India and Ceylon. The remaining Secretaries are supported by the Associations of North America, Australasia and Great Britain but their work is directed by committees in India to whom their services are loaned for the time being. The first paid Secretary came to India over twenty-five years ago in response to an appeal from Madras. Soon afterwards the National Council was organised, and has become increasingly an indigenous institution.

There are now 10 Associations with 11,800 members. Of these about one-quarter are Europeans and three-quarters are Indians, of whom over half are non-Christians. The following Associations own one or more buildings which serve as the local headquarters—Allahabad, 2; Bangalore 1; Alleppey 1; Bombay 4; Calcutta 5; Calicut, 1; Coimbatore 1; Colombo 1; Galle 1; Hyderabad 1; Jubbulpore 1; Karachi 1; Lahore 1; Madras 1; Mandalay 1; Maymyo 1; Nagpur 1; Naini Tal, 1; Rangoon 3; Secunderabad 1; Simla 1.

In addition to buildings owned by the Association bungalows have been rented to serve as headquarters in the following stations—Ahmednagar 1; Allahabad, 1; Bangalore 2; Colombo 2; Delhi, 1; Peshawar, 1; Hyderabad, 1; Jubbulpore 1; Jhansi 1; Jubbulpore 1; Lahore 2; Lucknow 1;

Madras 1; Madras 1; Mhow, 1; Palamcottah 1; Malabar 1; Poona, 1; Pudukottah 1; Rangoon 1; Trivandrum 1.

The departments of the National Council are Railway Rural Literary Army High School Architectural and Physical. The Student Christian Association is affiliated to the National Council and has branches in more than two score Colleges. The Railway Department is responsible for the development of Associations amongst railway employees. At Jamalpur the railway Institute and Apprentices Engineers Club are operated by the Y. M. C. A. The Rural Department is organising village Y. M. C. A. s and co-operative credit societies and promoting cottage industries. The Literary Department maintains three Secretaries—J. V. Farquhar for Hindulm, K. J. Saunders for Buddhism and H. A. Walter for Mohammedanism. The object of the department is to promote a proper and sympathetic understanding of the non-Christian religions and show their relationship to Christianity. At the beginning of the war there were but three Army Associations and five Army Secretaries in the whole of India. Now Association privileges are provided for British Troops in eighteen cantonments under the direction of thirty six Secretaries and Assistants. Five Secretaries have been sent to organise Soldiers Clubs in Mesopotamia and thirty eight Secretaries have been sent to serve the Indian Expeditionary Force A in Europe. In addition to organising Y. M. C. A. s school boys the High School Department arranges for holiday camps for boys and high school teachers. The National Council employs its own architects who plan and construct its buildings, hostels and play grounds. The Physical Department specialises on physical education and is promoting the playground movement.

The headquarters of the National Council is 86 College Street Calcutta. The officers are—

Patron—His Excellency Lord Hardinge of Penshurst Viceroy and Governor General of India.

Chairman—Raja Sir Harnam Singh K. C. L. E.

Treasurer—W. R. Gourlay Esq. I. C. S., 8 Government Place Calcutta.

Joint Treasurer—L. Robertson, Esq. I. C. S.

General Secretaries—E. C. Carter A. C. Hart K. T. Paul.

The Bombay Association now possesses four well-equipped buildings—Wodhouse Road, Lamington Road, Rebach Street and Reynolds Road. The President is Mr. D. M. Ingile and the General Secretary is Mr. L. G. G. Cronin. In connection with each building there is a well managed hostel one for Anglo-Indian apprentices one for Indian students one primarily for European business men, and one for Indian Christians. The Hilton Hockey Tournament and the Gopur Tennis Tournament are held annually under the auspices of the Bombay Association.

TABLE OF WAGES INCOME, &c
Showing the amount for one or more days at the rate of 1 to 10 Rupees per Month of 31 Days

Rate	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Days	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.	Rs. p.
1	0 0 0	1 0 0	1 6 0	2 0 0	2 6 0	3 1 0	3 7 0	4 1 0	4 7 0	5 1 0	5 8 0	6 2 0	6 9 0	7 3 0	7 9 0	8 3 0
2	0 0 1	0 0 3	0 0 8	0 1 0	0 1 6	0 1 9	0 2 0	0 2 3	0 2 6	0 2 9	0 3 1	0 3 4	0 3 7	0 4 0	0 4 3	0 4 6
3	0 0 2	0 0 6	0 1 0	0 1 6	0 2 0	0 2 4	0 2 8	0 3 2	0 3 6	0 4 0	0 4 4	0 4 8	0 5 2	0 5 6	0 6 0	0 6 4
4	0 0 3	0 0 9	0 1 4	0 2 0	0 2 6	0 3 0	0 3 4	0 3 8	0 4 2	0 4 6	0 5 0	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0
5	0 0 4	0 0 1 0	0 1 6	0 2 2	0 2 8	0 3 2	0 3 6	0 4 0	0 4 4	0 4 8	0 5 2	0 5 6	0 6 0	0 6 4	0 6 8	0 7 2
6	0 0 5	0 0 1 1	0 1 7	0 2 3	0 2 9	0 3 3	0 3 7	0 4 1	0 4 5	0 4 9	0 5 3	0 5 7	0 6 1	0 6 5	0 6 9	0 7 3
7	0 0 6	0 0 1 2	0 1 8	0 2 4	0 3 0	0 3 4	0 3 8	0 4 2	0 4 6	0 5 0	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0	0 7 4
8	0 0 7	0 0 1 3	0 1 9	0 2 5	0 3 1	0 3 5	0 3 9	0 4 3	0 4 7	0 5 1	0 5 5	0 5 9	0 6 3	0 6 7	0 7 1	0 7 5
9	0 0 8	0 0 1 4	0 2 0	0 2 6	0 3 2	0 3 6	0 4 0	0 4 4	0 4 8	0 5 2	0 5 6	0 6 0	0 6 4	0 6 8	0 7 2	0 7 6
10	0 0 9	0 0 1 5	0 2 1	0 2 7	0 3 3	0 3 7	0 4 1	0 4 5	0 4 9	0 5 3	0 5 7	0 6 1	0 6 5	0 6 9	0 7 3	0 7 7
11	0 0 10	0 0 1 6	0 2 2	0 2 8	0 3 4	0 3 8	0 4 2	0 4 6	0 5 0	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0	0 7 4	0 7 8
12	0 0 11	0 0 1 7	0 2 3	0 2 9	0 3 5	0 3 9	0 4 3	0 4 7	0 5 1	0 5 5	0 5 9	0 6 3	0 6 7	0 7 1	0 7 5	0 7 9
13	0 0 12	0 0 1 8	0 2 4	0 3 0	0 3 6	0 4 0	0 4 4	0 4 8	0 5 2	0 5 6	0 6 0	0 6 4	0 6 8	0 7 2	0 7 6	0 8 0
14	0 0 13	0 0 1 9	0 2 5	0 3 1	0 3 7	0 4 1	0 4 5	0 4 9	0 5 3	0 5 7	0 6 1	0 6 5	0 6 9	0 7 3	0 7 7	0 8 1
15	0 0 14	0 0 2 0	0 2 6	0 3 2	0 3 8	0 4 2	0 4 6	0 5 0	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0	0 7 4	0 7 8	0 8 2
16	0 0 15	0 0 2 1	0 2 7	0 3 3	0 3 9	0 4 3	0 4 7	0 5 1	0 5 5	0 5 9	0 6 3	0 6 7	0 7 1	0 7 5	0 7 9	0 8 3
17	0 0 16	0 0 2 2	0 2 8	0 3 4	0 4 0	0 4 4	0 4 8	0 5 2	0 5 6	0 6 0	0 6 4	0 6 8	0 7 2	0 7 6	0 8 0	0 8 4
18	0 0 17	0 0 2 3	0 2 9	0 3 5	0 4 1	0 4 5	0 4 9	0 5 3	0 5 7	0 6 1	0 6 5	0 6 9	0 7 3	0 7 7	0 8 1	0 8 5
19	0 0 18	0 0 2 4	0 3 0	0 3 6	0 4 2	0 4 6	0 5 0	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0	0 7 4	0 7 8	0 8 2	0 8 6
20	0 0 19	0 0 2 5	0 3 1	0 3 7	0 4 3	0 4 7	0 5 1	0 5 5	0 5 9	0 6 3	0 6 7	0 7 1	0 7 5	0 7 9	0 8 3	0 8 7
21	0 0 20	0 0 2 6	0 3 2	0 3 8	0 4 4	0 4 8	0 5 2	0 5 6	0 6 0	0 6 4	0 6 8	0 7 2	0 7 6	0 8 0	0 8 4	0 8 8
22	0 0 21	0 0 2 7	0 3 3	0 3 9	0 4 5	0 4 9	0 5 3	0 5 7	0 6 1	0 6 5	0 6 9	0 7 3	0 7 7	0 8 1	0 8 5	0 8 9
23	0 0 22	0 0 2 8	0 3 4	0 4 0	0 4 6	0 5 0	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0	0 7 4	0 7 8	0 8 2	0 8 6	0 9 0
24	0 0 23	0 0 2 9	0 3 5	0 4 1	0 4 7	0 5 1	0 5 5	0 5 9	0 6 3	0 6 7	0 7 1	0 7 5	0 7 9	0 8 3	0 8 7	0 9 1
25	0 0 24	0 0 3 0	0 3 6	0 4 2	0 4 8	0 5 2	0 5 6	0 6 0	0 6 4	0 6 8	0 7 2	0 7 6	0 8 0	0 8 4	0 8 8	0 9 2
26	0 0 25	0 0 3 1	0 3 7	0 4 3	0 4 9	0 5 3	0 5 7	0 6 1	0 6 5	0 6 9	0 7 3	0 7 7	0 8 1	0 8 5	0 8 9	0 9 3
27	0 0 26	0 0 3 2	0 3 8	0 4 4	0 5 0	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0	0 7 4	0 7 8	0 8 2	0 8 6	0 9 0	0 9 4
28	0 0 27	0 0 3 3	0 3 9	0 4 5	0 5 1	0 5 5	0 5 9	0 6 3	0 6 7	0 7 1	0 7 5	0 7 9	0 8 3	0 8 7	0 9 1	0 9 5
29	0 0 28	0 0 3 4	0 4 0	0 4 6	0 5 2	0 5 6	0 6 0	0 6 4	0 6 8	0 7 2	0 7 6	0 8 0	0 8 4	0 8 8	0 9 2	0 9 6
30	0 0 29	0 0 3 5	0 4 1	0 4 7	0 5 3	0 5 7	0 6 1	0 6 5	0 6 9	0 7 3	0 7 7	0 8 1	0 8 5	0 8 9	0 9 3	0 9 7
31	0 0 30	0 0 3 6	0 4 2	0 4 8	0 5 4	0 5 8	0 6 2	0 6 6	0 7 0	0 7 4	0 7 8	0 8 2	0 8 6	0 9 0	0 9 4	0 9 8

PRINCIPAL CLUBS IN INDIA

Name of Club	Established	Club house	Subscription			Secretary
			Ent	Annual	Monthly	
ABBOTTABAD		Abbottabad N W F	Rs 18	Rs 10		Capt P M Rundle
ADYAR	1890	Providence	75	12	4	F Buckley
AGRA	1885	Aggra Cantonment	50		7	Major G H C Wilkins, R G A
AHMEDNAGAR	1889		50		10	Maj W Cortlandt Anderson
AJMAL	1893	Lushai Hills E B and A-ssam	32		10	Lt Col G H Loch
AMRITSAR	1883	Kaiser Bagh	50		10	(Richai son)
AKOLA	1890	Berar	100		0	H C Greenfield
ALLAHABAD	1865	Allahabad	100		9	Capt M M. Routh, R A
AMRITSAR			100		7	W J M Peck
AMRITSAR	1894	Amritsar	20		7	A Mackay
BANGALORE UNITED SERVICE	1888	38 Residency Road	100	12	7	Major L Tennant
BAREILLY	1883	Municipal Gardens	32		9	Capt W F M Loughman
BARRACKPUR	1864	Backerganj Barrack	25		12	C H W Davies
	1850	Grant Trunk Road N River side	48		10	Major G D L Chaterton
BASSEIN	1881	Peiche Street 50 Bas- sent Burma	50		10	Comdr A Hamilton
BELGAUM	1884	Close to Race Course	50		10	Lt-Col J W Harley Lyau
BENARES			50		14	Wilmot C Dover
BHAGAL	1821	38 Chowringhee Road Calcutta	50	1	11	Col W Wadsworth
BHAGAL	1821	38 Chowringhee Rd	50	14	10	C A Mackenzie
BHAGAL UNITED SER- VICE	184		100		0	H G Idington
BOMBAY	1862	Parnapart Row	100		0	C A Miller
BOMBAY	1885	Merchant Street Ran- goon	50		0	
BYCULLA	1833	Bellairs Rd Bombay	200	12	10	W P Peckley
CALCUTTA	1907	13 Russell Street	100			D Lindsay & Sir Iajendra Nath Mukerjee
CALCUTTA TURF	1861	19 Theatre Road	150	25		J Hutchison
CANNING	1844	Cowpore	50	4		Major Lawrence
CHAMBA	1891	Dalhousie Punjab	50		14	Capt H R Hoods
CHITTAGONG	1878	Pioneer Hill Chittga- gong	50		10	Comdr E Gray
CLUB OF CENTRAL INDIA	1885	Mhow	50		8	Mill R L M
CLUB OF WESTERN INDIA	1855	Elphinstone Road, Poona	200		6	Major Charles T Lamman
COCHIN	1878		50		0	Frederic A Cox
COCOMADA	1887	Cocomada	70		10	I H Deane
COIMBATORE	1868	Coimbatore	50		7	E M Mose
COONOR	1884	Coonor Nilgris	50	10	4	L W Stanley C I E
DACC	1864	Dacca	50		14	Capt P L Lygon
DARJEELING	1868	Auckland Road	70		7	F M. Finme
DELHI	1899	Lodlow Castle, Delhi.	32		10	Lt Col. D M Davidson I M S.
HIMARAYA	1841	Mussoorie	100	12	10	R S Wahab
JHANSI	1887	Next to Public Gar- dens Jhansi.	50		9-6	Major W Halloran, R.A.M.C.

Principal Clubs in India

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Name of Club	Estab- lished	Club-house	Subscription			Secretary
			Ent	An- nual	Mon- thly	
MADRAS	1831	Mount Road, Madras.	Rs 250	Rs 92	Rs 10	Captain W B. F Davidson
MALABAR	1844	Beach Road, Calicut	50	12	6	W O Wright.
MATMYO	1901		100	12	10	
MOOLTAY	1892	Mooldan	80		12	Capt C B. Penton
MAINT TAL	1864		100		5	Capt. J O Nelson
OOTACAMUND	1840	Ootacamund Nilgiri Hills	150	12	5	C A Mackenzie
ORIENT		Chaupatty Bombay	150		6	Jehangir Dosabhooy Framjee, I S O and A H A Simcox, I C S
PGOU	1871	Prome Rd Rangoon	100	12		Capt. B Stephenson
PESHAWAR	1888	Peshawar	32		10	Capt I M. Conway Poole
PUNJAB	1879	Upper Mall, Lahore	150		12	A B. Ross Redding.
QUETTA	1879	Quetta	80		15	Capt. B Leicester
RANGOON GYMCHANA	1874	Halpi, Rd Rangoon	75	6	7	W B. (lover
RANGOON BOAT CLUB		Royal Lake, Rangoon	48		3	R R. Ycomans.
RAJPUTANA	1860	Mount Abu	50	48	8	Maj M P Corkery
ROYAL BOMBAY YACHT	1890	Apollo Bunder	250	18	8	G C Minston
SATURDAY		7 Wood St Calcutta.				G Hervey
SECUNDERABAD	1883	Secunderabad, Deccan	100		8	W C Clark.
SHILLONG	1878	Northbrook Road Shillong.	50		12	C H Holder
SIALKOT		Sialkot Punjab	32		6	Capt G S Blatch Carnac
SIND	1871	Karachi	200	12	6	J Humphrey
TRICHINOPOLY	1869	Cantonment	50		4	G McC Conway
TUTICORIN	1885	Tuticorin	50		8	H S. Northey
UNITED SERVICE CLUB	1866	Simla	200			Capt L B. Vaughan
UNITED SERVICE CLUB LUCKNOW	1861	Chutter Manzil Palace	50		8	G L Dwygala
UPPER BURMA	1880	Port Dufferin Mandalay	50		8	E D Haffenden
WESTERN INDIA TURF		Bombay and Poona	50	20		Maj J E Hughes absent on Military Duty Ag Secretary J Reynolds
WHEELER	1863	The Mall Meerut	50		9	Captain H Watton

The Church in India.

In the ordinary acceptance of the term there is no established Church in India. An Ecclesiastical Establishment is maintained for providing religious ministrations, primarily to British troops, secondarily to the European civil officials of Government and their families. Seven out of the eleven Anglican Bishops in India are officers of the Establishment, though their episcopal jurisdiction far transcends the limits of the Ecclesiastical Establishment. The stipends of the three Presidency Bishops are paid entirely by Government and they hold an official status which is clearly defined. The Bishops of Lahore, Lucknow, Nagpur and Bangalore draw from Government the stipends of Senior Chaplains only but their episcopal rank and territorial titles are officially recognised. The Bishops of Ootca, Nagpur, Tinnevely, Madras, Travancore, Cochin, Dornakal and Assam are not on the establishment. The new Bishopric of Assam was created in 1915. In its relations with Government it is subordinate to the see of Calcutta. But the maintenance of the Bishopric is met entirely from voluntary funds.

The ecclesiastical establishment includes four denominations—Anglican, Scottish, Roman and Wesleyan. Of these the first two enjoy a distinctive position in that the Chaplains of those denominations (and in the case of the first-named the Bishops) are individually appointed by the Secretary of State and rank as gazetted officers of Government. Throughout the Indian Empire there are 184 Anglican and 18 Church of Scotland chaplains whose appointments have been confirmed. The authorities in India of the Roman Catholic receive block-grants from Government for the provision of clergy to minister to troops and others belonging to their respective denominations. The Wesleyan Methodist Church has a staff of military chaplains in India who receive a fixed salary from Government and 20 chaplains working on a capitation basis of payment by Government. Churches of all four denominations may be built, furnished and repaired wholly or partly at Government expense.

In the Anglican Communion a movement towards Synodical Government was making great progress when in the course of the year 1914, various legal difficulties were encountered. The Bishops were advised that their relations with Canterbury and the Crown precluded the establishment of synods on the basis adopted by the Anglican Church in America, Japan, South Africa and other countries where it is not established by the State. It is stated that in course of time those relations may be modified so as to admit of the establishment of synodical government in India. Meanwhile Diocesan Councils are being adopted as a makeshift measure. These Councils possess synodical characteristics, but are devoid of any coercive power.

So far as the European and Anglo-Indian communities are concerned the activities of the Church are not confined to public worship and pastoral functions. The education of the children of those communities is very largely in the hands of the Christian denominations. There are a few institutions such as the La-

Martiniere Schools, on a non-denominational basis but they are exceptional. In all the large centres there exist schools of various grades as well as orphanages for the education of Europeans and Anglo-Indians under the control of various Christian bodies. The Roman Catholic Church is honourably distinguished by much activity and financial generosity in this respect. Her schools are to be found throughout the length and breadth of the Indian Empire and they maintain a high standard of efficiency. The Anglican Church comes next, and the American Methodists have established some excellent schools in the larger hill-stations. The Presbyterians are also well represented in this field particularly by the admirable institution for destitute children at Kalimpong, near Darjeeling. Schools of all denominations receive liberal grants-in-aid from Government, and are regularly inspected by the Education Departments of the various provinces. Thanks to the free operation of the denominational principle and its frank recognition by Government, there is no religious difficulty in the schools of the European and Anglo-Indian communities.

Christian Missions

The tradition that St. Thomas, the Apostle was the first Christian missionary in India is by no means improbable. History however carries us no further back than the sixth century when a community of Christians is known to have existed in Malabar. Since then the so-called Syrian Church in south-west India has had a continuous life. Except in its infancy this Church (or rather these Churches for the Syrian Christians are now divided into four communions) has displayed little of the missionary spirit until quite recent times. Western Christianity was first introduced into India by the Portuguese who established their hierarchy throughout their sphere of influence, Goa being the metropolitan see of the Indies. St. Francis Xavier a Spaniard by race took full advantage of the Portuguese power in Western India to carry on his Christian propaganda. His almost super-human zeal was rewarded with much success but many of the fruits of his labour were lost with the withdrawal of the Portuguese Empire. It is really to the work of the missionaries of the Propaganda in the 17th century that the Papacy owes its large and powerful following in India to-day. The Roman Catholics in India number 1,904,008 of whom 379,251 were added during the decade 1901-1911. The total of Syrian Christians (exclusive of those who while using the Syrian liturgy are of the Roman obedience) is 315,618, as against 248,741 in 1901. Protestant Christians (the term throughout this article includes Anglicans) number 1,636,781, an increase of 484,666 since 1901. Thus the total number of Christians of all denominations in India is now close on four millions. In fact it probably exceeds that figure at the present moment as these statistics are taken from the Census Report of 1911 and the rate of increase during the previous decade was nearly 100,000 per annum.

The Protestant Churches made no serious attempt to evangelise India till the beginning of the nineteenth century. They have thus been at work in the Indian mission field for something over 100 years and the statistical results of their efforts are given above. It is now however generally recognised that Christian missions are producing indirect effects in India which lend themselves only incompletely to any sort of tabulation. The main agency of this more diffuse influence of Christianity is the missionary school and college. The Protestant missions fill a considerable part in the elementary education of the country. According to the *Year Book of Missions in India* 1912 they are teaching 446,000 children in 13,204 elementary schools mostly situated in villages. This represents one ninth of the total of elementary schools and scholars throughout the Empire. The majority of children in these schools are non-Christians. The same is true also of the high schools and in a still greater degree of the colleges. The former number 283 with 62,600 male and 8,400 female pupils. There are 38 colleges affiliated to Universities containing 5,485 male and 61 female students. Of these as many as 5,241 are non-Christians. From the standpoint of missionary policy much importance is attached to these agencies for the indirect propagation of the Christian faith. The statesman and the publicist are chiefly interested in the excellent moral effect produced by these institutions amongst the educated classes and the higher educational ideals maintained by their staffs. The principal University colleges under Protestant auspices are the Madras Christian College, the Duff College Calcutta, the Wilson College Bombay and the Foreman College Lahore. All these are maintained by Presbyterian societies either British or American. The Roman Catholics have a large number of educational institutions ranging from small village schools to great colleges preparing students for University degrees. But the proportion of Christian students in their institutions is very much larger than in those of the Protestant bodies. The proportion of literates amongst native Roman Catholics is probably lower than amongst the Protestant converts but compared with Hindus and Mahomedans it is conspicuously higher. The Roman Catholics have some 8,000 elementary schools in which 96,000 boys and 41,000 girls are receiving instruction. In middle and high schools they have 140,000 boys and 73,000 girls and in University colleges about 6,000 students of both sexes. These figures, however, include a large proportion of Europeans and Eurasians who are an almost negligible quantity in Protestant mission schools and colleges.

More recent but producing even more widespread results is the **Philanthropic work** of Christian missions. Before the great famine of 1878 missionaries confined themselves almost exclusively to evangelistic and educational activity. The famine threw crowds of destitute people and orphan children upon their hands. Orphanages and industrial schools became an urgent necessity. But the philanthropic spirit is never satisfied with one kind of organisation or method. A great

stimulus was also given to medical missions. **Hospitals and dispensaries** have sprung up in all parts of the mission field, and leper asylums are almost a monopoly of Christian missionary effort. In 1911 the total number of medical missionaries working under Protestant societies in India was 118 men and 317 women; the majority of the former being also ordained ministers of religion. There are 184 industrial institutions in which 59 different arts and crafts are taught, ranging from agriculture to type-writing. In this department the Salvation Army hold a prominent place and the confidence of Government in their methods has been shown by their being officially entrusted with the difficult work of winning over certain criminal tribes to a life of industry. The indirect effect of all this philanthropic activity under missionary auspices has been most marked. It has awakened the social conscience of the non-Christian public and such movements as the Servants of India and the mission to the Depressed Classes are merely the outward and visible sign of a great stirring of the philanthropic spirit far beyond the sphere of Christian missionary operations.

Anglican Missionary Societies

The Church Missionary Society carries on work in India in seven different missions—the United Provinces, South India, Travancore and Cochin, Bengal, Western India, Punjab and Sind and the Central Provinces and Rajputana. The name are in order of seniority. Work was begun in what are now called the United Provinces in 1813, in the Punjab in 1851, and in the Central Provinces in 1854. The Society has always kept Evangelistic work well to the fore, but it also has important medical missions, especially on the N.W. Frontier and many schools of the Primary, Middle and High standards. The Church of England Women's Missionary Society is an offshoot of the C.M.S. controlling the work of 162 missionary ladies. The number of ordained European missionaries of the C.M.S. in India is 166. European laymen 64 and European lay women 271. The Society claims a Christian community of 1,85,000 of whom 52,000 are adult communicants.

Society for the propagation of the Gospel. Statistics of the work of this Society are not easily ascertained as much of it is done through Diocesan institutions, which, while financed and in many cases manned by the S.P.G. are entirely controlled by the Diocesan authorities. The best known of the S.P.G. missions is that at Delhi commonly called the Cambridge Mission to Delhi, carrying on educational work at St Stephen's College and School. At the College there are about 200 students under instruction and at the High School 800. The College hostels accommodate 100 students. Missions to the depressed classes exist in Burma, in the Ahmednagar District and in several parts of South India, especially in the Diocese of Tinnevely Madras. There are 1,18,000 Indian Christians under the auspices of the S.P.G. 90 ordained European missionaries and 98 European lady workers.

Other Anglican Societies. The Oxford Mission to Calcutta was started in 1880.

It works in the poorest parts of Calcutta and also at Barisal. There are 11 mission priests of this Society and 10 Sisters. In addition to its work amongst the poor the Oxford Mission addresses itself to the educated classes in Bengal and issues a periodical called *Asiaticum*, which is known all over India.

The Society of St John the Evangelist (commonly known as the Cowley Fathers) has houses at Bombay and Poona, and small stations in the Bombay Konkan. In Bombay its missionary work centres round the Church of Holy Cross, Umarihad, where there is a school and a dispensary. The Christians are chiefly drawn from the very poorest classes of the Bombay

population. At Poona the Society co-operates with the Wantage Sisters and in Bombay with the All Saints Sisters. Other Anglican sisterhoods represented in India are the Clewer Sisters at Calcutta and the Sisters of the Church (Kilburn) at Madras. The St. Hilda's Deaconesses Association of Lahore carries on important educational work (chiefly amongst the domiciled community) in the Punjab. The mission of the Scottish Episcopal Church at Nagpur through India University Mission at Hazaribagh and the Mission of the Church of England in Canada working at Kangra and Palampur (Punjab) should also be mentioned under the head of Anglican Missions.

Bengal Ecclesiastical Department.

Letoy Most Reverend George Alfred D.D.

Lord Bishop of Calcutta and Metropolitan of India

SENIOR CHAPLAINS

Stokes, Rev. Genl. George M.A.

Services transferred to Punjab

Firminger Ven.ble Walter Kelly M.A. B.D.

Archdeacon of Calcutta

Scott, Rev. Sydney S., M.A.

On combined leave

Stuart, Rev. Robert William Hall B.A.

On combined leave

Smith, Rev. Joseph Frank, B.A. A.M.C.

St James, Calcutta

Koelling, Rev. Ernest William Phillips B.A.

On combined leave

Drawbridge Rev. W. H. M.A.

Services transferred to Bihar and Orissa.

And 11 Junior Chaplains

CHAPLAINS OF THE CHURCH OF SCOTLAND

Thomson, Rev. William, M.A.

Presidency Senior Chaplain St. Andrew's,

Gillan Rev. D. H.

Calcutta On combined leave

McCaul Rev. M. W., B.A.

Officiating

Probationary Chaplain St. Andrew's, Calcutta

CHAPLAINS OF THE CHURCH OF ROME

Mouleman The Most Reverend Dr. Bruce S.J.

Archbishop

Carbery, Rev. Fr. Stanislaus, S.J.

Chaplain, Presidency Jail

Bombay Ecclesiastical Department

Palmer Right Reverend Edwin James, M.A.

Lord Bishop of Bombay

Barham, Rev. C. M. M.A. (on leave for 3 months from Archdeacon of Bombay and Bishop's December)

Commissionary

Bowen, John Cuthbert Grenside

Registrar of the Diocese

Kennedy, Rev. W. J. M., M.A.

Olson, Rev. A. H.

Haywood Rev. R. S.

Joshi, Rev. D. L.

King Rev. C.

Rivington Rev. C. S.

Honorary Canons of Bombay Cathedral

SENIOR CHAPLAINS

Courties Rev. George Robert Aulton M.A. B.S.O.

Belgaum

Footle Rev. Harold

Camp Aden

L'Alessio, Rev. Edward Samuel John, B.A.

Ahmedabad

deCostogon Rev. Charles Evelyn Cambridge M.A.

On furlough

Mould, Rev. Horace

Mount Abu

And 17 Junior Chaplains

CHAPLAINS OF THE CHURCH OF SCOTLAND

Matthew Rev. John Crombie M.A., B.D.

Senior Presidency Chaplain

And 2 Junior Chaplains

CHAPLAINS OF THE CHURCH OF ROME

Jurgens, The Very Rev. H.

Presidency

Madras Ecclesiastical Department.

Whitehead, Right Reverend Henry D.D.

Lord Bishop of Madras

Cox, Ven.ble Lionel Edgar, M.A.

Archdeacon and Commissary and Domestic

Rowlandson, Frederic, B.A. LL.B.

Chaplain to the Lord Bishop

Registrar of the Diocese and Secretary to the Lord Bishop

SENIOR CHAPLAINS.

Breay Rev Christopher Francis, M A
 Bull, Rev, Edmund
 Giles, Rev Clement Douglas M A
 Welchman Rev Richard Herbert M A.
 Flynn Rev Hugh Hamilton
 Hatchell, Rev Christopher Frederic Wellesley M A
 Haycock, Rev Francis Wheaton M A

J. Thomas Mount
 Mysore and Mysore
 Ootacamund
 On combined leave
 Coonoor.
 St John's, Bangalore.
 Trichinopoly

And 24 Junior Chaplains

CHURCH OF SCOTLAND

Heron Rev John M A B D

Mekdum, Rev Neil M A B D

Phillip Rev James Gibson

Mitchell, Rev James Donald M A B D

Presidency Senior Chaplain Ag Chaplain,

St. Andrew's Church Secunderabad.

St. Andrew's Church Madras

St. Andrew's Church, Bangalore

On combined leave

Assam Ecclesiastical Department

Cowserat, Rev N W P B A

Kendrick Rev G V

McFarlane Rev W P B A

Lakhimpur

Sibsagar

Silchar

Bihar and Orissa Ecclesiastical Department

JUNIOR CHAPLAINS

Drawbridge Rev William Hamilton M A

P. H. J. A. Henry

Green, Canon Arthur Daniel

Payne Rev Russell, M A.

Cosgrave Canon W F

Moore Rev H M.

Spount Rev Harold

Dinapore

Bhagalpur

Monghyr and Jamalpur

Muzaffarpur

Ranchi

Bankipore

services placed at the disposal of the Government of India Army Dept.

Burma Ecclesiastical Department

Fyfe The Right Reverend Rolleston Sterritt M A

Cory Ven ble Charles Page M A

Lord Bishop of Rangoon

Archdeacon and Bishop's Commissary

SENIOR CHAPLAINS

Blandford, Rev Henry Woare B A

Collins Rev James Henry

Seeley Rev George Henry

Ellaby, Rev George Alfred, B A

Mawmye

On leave

Rangoon Cantonment,

Shwabo

And 7 Junior Chaplains

Central Provinces Ecclesiastical Department

Chatterton Right Reverend E D D

Price Ven ble C., M A

Lord Bishop of Nagpur

Archdeacon, Nagpur

SENIOR CHAPLAINS

Darling, Rev C W M A

Anstey Rev H C S M A

Clarke Rev W L. M A

On combined leave

Nasirabad.

On combined leave

And 14 Junior Chaplains

North-West Frontier Ecclesiastical Department

SENIOR CHAPLAIN

Campbell Rev R W B A

Nowshera.

And 4 Junior Chaplains.

Punjab Ecclesiastical Department.

Durrant, Right Reverend H B, M A, D D

Warlow The Ven ble Edmund John M A

Hean Ullah The Ven ble

Lord Bishop of Punjab Lahore

Archdeacon (Simla)

Archdeacon Lahore (Un-official)

SENIOR CHAPLAINS

Naleh, Rev Henry

Becker, Rev Charles Maxwell, M A

Syme Rev James Greenall Skottowe, M A

Brooke, Rev Joshua Alfred Rowland, M A

Stanley, Rev Albert Edward, M A.

Muspratt, Rev Walter M A.

Stewart, Rev Charles B A.

Karachi.

Murree (Further) Galle.

Lahore

Delhi

Multan

Ferozepur

Hyderabad (Sind)

And 10 Junior Chaplains.

United Provinces Ecclesiastical Department

Wescott, The Right Reverend George Herbert
 Chapman, The Venble Percy Hugh M.A. LL.D.
 Pearson H.G. Barr at Law

Kirwan, Rev Robert Manuel M.A.

Bshaw Rev Walter Lilley Pritchett, M.A.
 Johnson Rev Percy James Debenham, B.A.
 Oldham, Rev George Ernest, M.A.
 Canney Rev Duncan Arnold

Mendes Rev Henry M.A.

Lord Bishop of Lucknow
 Archbishop of Lucknow
 Registrar of the Diocese of Lucknow

SENIOR CHAPLAINS

Services placed at the disposal of Government Army Department.
 Roorkee
 Cawnpore
 Mussorie
 Services placed at the disposal of the Government of Punjab
 Lucknow

And 16 Junior Chaplains with 7 Additional Clergy

CHURCH OF SCOTLAND

Two Junior Chaplains

THE ROMAN CATHOLIC CHURCH.

With regard to numbers, the *Catholic Directory of India* 1913 gives the following discrepant tables —

	Civil Census 1911	Ecclesiastical Estimate
British India { Latin rite	1 430 582	1 535 820
{ Syriac rite	411 142	884 660
Total British India and P. & S. States	1 848 724	1 900 480
Burma	80 282	88 447
Ceylon	339 300	822 163
Total India Burma and Ceylon	2,268 306	2 811 090
French India		25 918
Portuguese India		296 148
Ecclesiastical Grand Total		2,663 156*

* After trying to rectify discrepancies the *Directory* fixes as probable the following numbers —
 European and Eurasian Catholics 114,512
 Baptised Native Catholics 2,423,286

Total 2 537 798

The Catholic community as thus existing is composed of the following elements —

- (1) The Syrian Christians of the Malabar Coast, traditionally said to have been converted by the Apostle St. Thomas. They were brought under allegiance to the Pope by the Portuguese in 1599, and placed first under Jesuit bishops and then under Carmelite Vicars Apostolic. They are at present ruled by four Vicars Apostolic of their own Syriac rite.
- (2) Converts of the Portuguese missionaries from 1500 and onwards starting from Goa and working in the south of the peninsula and up the west coast and in Ceylon.
- (3) European immigrants at all times, including British troops.
- (4) Modern converts from Hinduism and Animism in recent mission centres.

The Portuguese mission enterprise starting after 1500 continued for about 200 years after which it began to decline. To meet this decline fresh missionaries were sent out by the Congregation *de propaganda fide* till by the middle of the 19th century the whole country was divided out among them except such portions as were occupied by the Goa clergy. Hence arose a conflict of jurisdiction in many parts between the Portuguese clergy of the padroado or royal patronage and the propaganda clergy. This conflict was met at rest by the Concordat of 1886. At the same time the whole country was placed under a regular hierarchy which after subsequent adjustments now stands as follows. —

Of the Portuguese Jurisdiction —

The archbishopric of Goa (having some extension into British territory) with suffra-

gan bishoprics at Cochin, Mysore and Daman (all three covering British territory)

Of the Propaganda Jurisdiction —

The archbishopric of Agra with suffragan bishoprics of Allahabad and Rajputana and the Prefecture Apostolic of Bettiah

The archbishopric of Bombay, with suffragan bishoprics of Poona, Mangalore and Trichinopoly

The archbishopric of Calcutta, with suffragan bishoprics of Dacca and Krishnagar and the Prefecture Apostolic of Assam

The archbishopric of Madras with suffragan bishoprics of Hyderabad, Vizagapatnam and Nagpur

The archbishopric of Pondicherry (French) with suffragan bishoprics of Mysore, Coimbatore and Kumbakonam

The archbishopric of Simla with suffragan bishopric of Lahore and the Prefecture Apostolic of Kashmir

The archbishopric of Colombo (Ceylon) with suffragan bishoprics at Kandy, Galle, Jaffna and Trincomalee

The archbishopric of Verapoly with suffragan bishopric of Quilon

Four Vicariates Apostolic of the Syriac rite for the Thomas Christians of Malabar

Three Vicariates Apostolic of Burma.

The European clergy engaged in India almost all belong to religious orders, congregations or mission seminaries and with a few exceptions are either French, Belgian, Dutch, German, Spanish or Italian by nationality. They number about 1,000 besides which there is a body of secular clergy mostly native to the country numbering about 2,000 and probably about 2,000 nuns. The first work of the clergy is parochial ministrations to existing

Christians including railway people and British troops. Second comes a mission which is not confined to their own people, their schools being frequented by large numbers of Hindus, Mahomedans, Parsis, etc. Among the most important institutions are St. Xavier's College, Calcutta, St. Peter's College, Agra, St. Xavier's College, Bombay, St. Joseph's College, Trichinopoly, St. Aloysius College, Mangalore, teaching university courses besides a large number of high schools and elementary schools. The education of girls is supplied for by numerous convent schools worked by religious congregations of nuns to say nothing of orphanages and other charitable institutions. The total number under education amounted in 1904 to 143,031 boys and 71,184 girls, later figures being unavailable.

As to missionary work proper the country is covered with numerous mission centres, among which those in Cochin, Nagpur, Guzerat, Orissa, the Vizam's Dominions, the Ahmednagar district and the Telugu coasts may be mentioned. (Full particulars on all points will be found in the Catholic Directory already quoted.) The mission work is limited solely by the want of men and money which is forthcoming would give the means to an indefinite extension. The resources of the clergy after the ordinary church collections and pay of a few military and railway chaplains are derived mainly from Europe that is, from the collections of the Society for the Propagation of the Faith and of the Holy Childhood helped out by private or other donations secured from home by the different local missionaries. In mission work the fathers count as enrolled only those who are baptised and persevering as Christians and no baptism, except for infants or at point of death, is administered except after careful instruction and probation. This, while keeping down the record, has the advantage of guaranteeing solid results.

THE SCOTTISH CHURCHES

THE CHURCH OF SCOTLAND—The Chaplaincy work of the Church of Scotland dates from 1814, when the Rev. Dr. Bryce landed in Calcutta and organised a congregation of his Scottish fellow countrymen. Since 1903 there have been eighteen chaplains on the staff of whom nine belong to the Bengal Presidency five to Bombay and four to Madras. These minister both to the Scottish troops and to the civil population of the towns where they are stationed but when there is a Scottish regiment the chaplain is attached to the regiment instead of being posted to the station where the regiment happens to be placed and as a rule moves with the regiment. There are three Presidency senior Chaplains in charge of Bengal, Bombay and Madras respectively. There are churches in the chief towns of the Presidencies and Churches have also been built or are being built in all considerable military stations, e.g. Chakrata, Lucknow, Peshawar, Rawalpindi, Rawalpindi, Sialkot and Umballa. In addition to the regular establishment there are a number of acting Chaplains sent out by the Colonial Committee of the Church of Scotland and these are serving in such stations as Rawalpindi, Cawnpore, Meerut

Mhow and Quetta. The additional clergy societies in India contribute towards the cost of this additional establishment. In other places such as Sialkot, Murree, Dalhousie, Darjeeling and Lahore regular services are provided by Scottish Missionaries. Simla has a minister of its own sent out from Scotland.

The Mission work of the Church of Scotland dates from 1820 when Alexander Duff, one of the greatest of modern missionaries, was sent to Calcutta. He was the first to open schools where English was made the medium for instruction and where religious teaching was given daily. Similar educational missions were soon afterwards started in Bombay and Madras. Educational work is still an important branch of the mission work of the Church, but the Bombay College was closed in 1891, and in 1901 the College in Calcutta was united with the College of the United Free Church of Scotland to form the Calcutta Christian College. In the Punjab Evangelistic work is being carried on from eight centres under seventeen missionaries. The baptised Christian community now numbers almost 12,000. Work commenced in Darjeeling in 1870 is now carried on throughout the whole

Eastern Himalayan districts, and there is a Christian community there of over six thousand. In the five mission districts of Calcutta, the Eastern Himalayas, Madras, Poona, and the Punjab there were at the end of 1911 over 19,500 baptised Indian Christians. In connection with these missions the Women's Association of Foreign Missions does invaluable service in school, medical and sanatorium work having in India 48 European missionaries, 145 teachers, over 50 schools, three hospitals and six dispensaries.

The Church of Scotland has also done much to provide education for European children in India. Together with the United Free Church St. Andrew's Church provides the governing body of the Bombay Scottish High Schools which have always held a high place among such institutions and exercise pastoral supervision over the Bombay Scottish Orphanage. In Bangalore there is the St. Andrew's High School, and both in Bangalore and in Madras the local congregation supports a school for poor children. The now well known St. Andrew's Colonial Homes at Rahinpong, Bengal, though not directly part of the work of the Church of Scotland were initiated by and are being locally managed by Missionaries of that Church. The homes exist for the benefit of the domiciled European community, and are doing magnificent work. There are now fifteen cottages, and 437 children in residence.

THE UNITED FREE CHURCH OF SCOTLAND—This branch of the Scottish Church has only two purely European congregations in India, one in Calcutta, Wellesley Square and one in Bombay Wandhy Road. As noted above members of these congregations co-operate with the Established Church of Scotland in providing education for European children. In Calcutta a second congregation is maintain-

ed at Howrah in the district of the mills, and every effort is made to minister to the Scottish engineers and other workers in the mills.

The Mission work of the Church is extended and varied. It is carried on in six centres—in Bengal in Santalla with five stations, in Western India, including Bombay Bombay district, Poona and Jalna and Belhel in the Nilgiris Dominions in Madras with four stations in the Central Provinces including Nagpur Nagpur District, Bhandara, Wardha and Amraoti and in Rajputana where since 1860 missions have been established in eleven districts.

There are at work in these centres 213 Scotch missionaries together with a native staff of 340. Of organised Indian congregations there are 39 comprising 4,521 communicant members and representing a Christian community of 12,545. Of schools there are 324 with 726 teachers and 13,861 scholars. A large part of this work is organised and supported by the women of the Church who have sent out as many as 84 of these missionaries. In connection with the medical work of the mission there are 19 hospitals which in the year 1911-12 had 1,460 in-patients and 4,640 out-patients, all of whom are brought under Christian instruction. There are four great missionary colleges. There is the Madras Christian College with 700 students, which reached its great success under the wise leadership of the Rev. Dr. William Miller and which is now contributed to by five other Missionary Societies as well as that of the United Free Church. Representatives of these Societies which include the C. M. S. and the Wesleyan Missionary Society sit upon the College Board. There is the Scottish Christian College in Calcutta, with over 1061 students, the Hindu College at Nagpur with 27 students, and the Wilson College in Bombay with 701 students.

BAPTIST SOCIETIES

THE ENGLISH BAPTIST MISSIONARY SOCIETY—Formed in 1792 largely through the efforts of Dr. Wm. Carey, operates mainly in Bengal, Bihar, the United Provinces and the Punjab, with a staff of 79 missionaries and about 800 Indian workers. Connected with the Society are 167 Indian Churches, 223 Day Schools, 18 boarding schools, and 2 Theological Training Colleges. The Church membership at the close of 1912 stood at 11,009 and the Christian Community at 81,473. In the methods of the Society, the chief place is given to Bazaar and Village preaching. Increase in membership during the past ten years, about 20 per cent and in the Community 60 per cent for the same period. Amongst the non-caste people great progress has been made in recent years, and Churches formed from amongst these peoples are self-supporting.

Special work amongst students is carried on in Calcutta, Dacca, Benares, Cuttack and Delhi where Hostels have been erected for the prosecution of this form of work.

EDUCATIONAL WORK—Ranges from Primary School to Colleges. Serampore College, the only College in India able to bestow a theological degree granted under Royal Charter

by His Danish Majesty in 1827 and confirmed by the British Government in the Treaty of purchase of the Settlement of Serampore in 1845 and placed in 1856 by the College Council at the disposal of the Baptist Missionary Society to become a part of its Missionary Educational operations Arts and Theological. It was affiliated in 1857 to the newly formed Calcutta University reorganised in 1910 on the lines of its original Foundation with the appointment of a qualified Theological Staff on an Interdenominational basis for the granting of Theological Degrees to qualified students of all Churches.

As the only College in India granting a Theological Degree a large number of students are now resident in the splendid College Buildings. In Arts, the College prepares for the Calcutta Arts Examinations. Principal Rev. G. Howells, M.A. B.D. LL.D. LL.M.

A Vernacular Theological Institute, and High School likewise attached to Serampore, as also at Delhi and Cuttack, for the training of native preachers.

There are 9 or 10 purely English Baptist Churches connected with the Society but English Services are carried on in many of the

stations where an European population obtains Medical Work connected with the Society reported 2 Hospitals, 7 Dispensaries, 401 in patients and 78 645 out patients for the year 1912 Two large Printing Presses for both English and Vernacular work are conducted at Calcutta and Dacca

WOMEN'S MISSIONARY AUXILIARY B.M.S.—Extends over the same area practically as the above there are 73 missionaries 336 Indian Workers 102 Girls Day Schools, and 5 Girls Boarding Schools in connection with this work 751 villages are visited annually by Teachers and Missionaries engaged in Gospel work A large place is given to medical work 5 Hospitals with qualified staffs and 12 Dispensaries providing for 1004 in patients and 93 84 out patients for the past year The Indian General Secretary of the Women's Missionary Auxiliary of the Baptist Missionary Society is Miss Angus 44 Lower Circular Road Calcutta

THE CANALIAN BAPTIST MISSION—Was commenced in 1873 and is located in the Eastern Telugu District to the north of Madras, in the districts Godavari Visagapatnam, and Ganjam Districts There are 22 stations and 122 out stations with a staff of 88 missionaries including 5 qualified physicians and 150 Indian workers with Gospel preaching in villages Organised Churches number 64 communicants 5 482 and a church 13 800 for the past year Nine Churches are entirely self-supporting In the Educational department are 226 village Day schools with 6 022 children 8 Boarding schools, 2 High schools, a Normal Training school, a Theological Seminary providing in all for 691 pupils, and an Industrial school There are 5 Hospitals and two Dispensaries The Mission publishes a Telugu newspaper Village Evangelisation is the great feature of the Mission and stress is laid upon the work amongst women and children in particular During the last decade membership has increased by 71 per cent the Christian community by 60 per cent and scholars by 376 per cent The Indian Secretary is Mr Rev A. A. Scott Funt, Godavari District

THE AMERICAN BAPTIST TELUGU MISSION—Was commenced in the year 1838 and covers large parts of Nellore Guntur Kistna and Karnool Districts and parts of the Deccan Its main work is evangelism, but there is large Educational and Medical work in addition There is an English Church in Madras A large Industrial Yerakala settlement is carried on at Kavali under the charge of one of the missionaries Organized Telugu Churches, number 133 with 68 830 baptized communicants There has been a net increase of 1 000 per annum for the past twenty years There are 126 Missionaries and 1 671 Indian Workers There is a large Theological Seminary at Ramapatnam for the training of Indian preachers and a Bible School at Vinukonda, for training Bible Women In ordinary educational work 601 day schools 20 Boarding Schools and 4 High Schools give training to 18 577 scholars In Medical work 5 Hospitals report 1,501 in patients and 19,583 out-patients for the year

Corresponding Secretary Prof. L. E. Martha Angole, Guntur District.

AMERICAN BAPTIST FOREIGN MISSION SOCIETY organized in 1814 has Missions in Burma begun 1814 Assam 1836 Bengal and Orissa 1836 South India 1840 It owes its rise to the celebrated Adoniram Judson, Until 1910 the Society was known as the American Baptist Missionary Union There are 31 main stations in Burma 13 in Assam, 8 in Bengal and Orissa 22 in South India besides hundreds of out-stations All forms of missionary enterprise come within the scope of the Society

The missionary staff numbers 195 in all with an Indian workers' staff of 4 064. Communicants number 147 676 Organised Churches number 1 316 of which 860 are self-supporting Educational work is conducted on a large scale the total number of schools of all grades being 1 848 with over 68 000 pupils. The Christian College has 95 students There are 8 High Schools with 3 16 pupils.

Medical work embraces 12 Hospitals and 26 Dispensaries During 1913 the number of out patients treated was 60 000 and in patients 1784

The great work of the Mission continues to be evangelistic and the training of the native preachers and Bible women and extends to many races and languages the most important of which in Burma has been the practical transformation of the Karen whose language has been reduced to writing by the Mission. The work in Assam embraces 9 different languages and large efforts are made amongst the employees on the tea plantations The Mission Press at Rangoon is said to be the largest and finest in Burma The American Baptist, Telugu Mission and the American Baptist, Bengal Orissa mission are branches of the above

Assam Secretary Rev Judson Tuttle, Gauhati Assam

Burma Secretary Rev H J Marshall Tharwaaddy Burma

Bengal and Orissa Secretary Rev Howard Murphy M.D. Midnapore Bengal

South India (or Telugu) Secretary Rev W. A. Stanton D.D. Kurnool Kurnool District S India

THE TASMANIAN BAPTIST MISSION—With 3 missionaries is established at Launceston, E. Bengal

Secretary Rev E. T. Thompson Mission House Launceston

THE AUSTRALIAN BOARD OF BAPTIST FOREIGN MISSIONS—Embracing the societies representing the Baptists of the States of the Australian Commonwealth. Its field of operations is in East Bengal. The staff numbers 6 Australian workers There are 1 461 communicants and a Christian community of 1 840

Secretary Field Council Rev Hadley Sutton, M.A. Mission House Mymensingh

THE STRICT BAPTIST MISSION—Has 10 Missionaries and 88 Indian Workers in Madras, W. and the Trichy District Communicants number 120 organised Churches 4 Elementary schools 25 with 1,200 pupils.

Secretary Rev E. A. Booth Kilpauk, Madras W

AMERICAN BAPTIST BENGAL-ORISSA MISSION commenced in 1886. Area of operation, Midnapore and Balasore districts of Lower Bengal. Mission staff 29 Indian workers 264. One English Church and 24 Vernacular Churches. Christian Community 6,000. One hospital and two dispensaries. Educational. One Theological

school and one High School, and 180 Elementary schools, pupils 4,680. Two Industrial schools for weaving and carpentering, &c. The Vernacular Press of this mission printed the first literature in the Santal Language.

Secretary Rev Howard R. Murphy M.D. Midnapore.

PRESBYTERIAN SOCIETIES

THE IRISH PRESBYTERIAN CHURCH MISSION—Operates in Gujarat and Kashiwar with a staff of 87. Missionaries of whom 4 are qualified doctors and an Indian staff of 560 including school teachers. There are 25 Organized Churches, a communicant roll of 1,569 and a Christian community of 5,772. In Medical work there are 2 Hospitals, 5 Dispensaries with 1,011 in patients and 22,171 out patients. The Mission conducts 3 High schools, 8 Anglo-vernacular schools and 134 vernacular schools affording tuition for 6,361 pupils. 6 Orphanages, a Divinity College at Ahmedabad, a Teachers' Training College for men, a Teachers' Training College for women both at Ahmedabad and a Mission Press at Surat. The Mission has made a speciality of farm colonies of which there are about a score in connection with it most of them thriving.

The Jungle Tribes Mission with 3 missionaries is a branch of the activities of the above working in the Panch Mahals and Rewa Nautha districts with farm colonies attached.

Secretary Rev R. R. Johnson, B.A. Mission House Ahmedabad.

THE UNITED PRESBYTERIAN CHURCH OF N. AMERICA—Sialkot Mission was established in 1856 operating in the extreme North of the Punjab and is practically the only Mission working amongst the 9,374 cities and villages of that district. Its missionaries number 4 Indian workers 18. There are 60 organized congregations with 499 stations, a membership of 42,807 and a Christian community of 61,064. Women's Societies number 23. 4 theological seminaries and a college. 4 high schools. 7 middle schools. 2 industrial schools. 320 primary schools, containing in all 12,111 pupils. In medical work there are 4 hospitals and 7 dispensaries with 1,646 in patients and 55,476 out-patients for 1914.

Secretary Rev R. Maxwell (Cairnval).

THE AMERICAN PRESBYTERIAN MISSION operates in 3 main sections known as the Punjab North India and Western India Missions. The American staff numbers 191 and Indian staff 1,208. There are 29 main stations and 14 out-stations. Organized churches number 41, 11 of whom are self supporting. There are 9,375 communicants, and a total baptised community of 46,321. Educational work as follows: 3 Christian Colleges students 1,042. Theological Institutions students 75. 16 High Schools pupils 1,025. 4 Industrial Schools. 6 Teachers' Training Departments. 35 Medical Students at Miraj. 300 Elementary School. 395 Schools of all grades pupils 13,224. Medical Work. 7 Hospitals. 12 Dispensaries. 4,448 in patients. 148,808 out patients visits. Sunday schools 460 with 12,227 Sunday School pupils. Contributions for church and evangelistic work on the part of the Indian Church, Rs. 18,820. Total Indian contributions for all purposes in raising educational and Medical fees and grants Rs. 4,25,643.

The Hospital at Miraj under the care of Dr. W. J. Wadless and Dr. C. E. Vailis well known throughout the whole of S. W. India and the former Christian College at Lahore under the principalship of Rev J. C. R. Ewing, D.D. (I.H.) is equally well known and valued in the Punjab. The Allahabad Christian College (Dr. A. R. Lanvier Principal) is growing rapidly and its mechanical and agricultural departments have become increasingly prominent. Woodstock College for Women at Munsoorie. Principal Miss A. Mitchell M.D. is one of the largest and most valuable institutions of this description in Northern India.

Secretary General of A.I. Missions in India

Rev H. D. (now) D. Ph. D. D. D. Saharanpur.

Secretary Punjab Mission Rev E. J. Luca

Lahore.

Secretary North India Mission Rev R. C.

Smith Fatehpur Haswa.

Secretary Western India Mission Rev H.

G. Howard Kodoh S.M.C.

THE NEW ZEALAND PRESBYTERIAN MISSION

—Commenced as recently as 1910 at Jagadhri

Punjab.

Secretary Miss A. E. Henderson Jagadhri.

THE CANADIAN PRESBYTERIAN MISSION—Commenced in 1877 has 11 main Stations in the Indore Gwalior Ratlam Dhar Alwarpr. Inora Sitapur Banswara &c Native States. The Mission staff numbers, 10 Indian workers or 228 Organized Churches 13 Communicants (September 30 1914 1,115). 1,118 Baptised non-communicants 1,818 Unbaptised infants and catechumens 114. Educational work comprises Elementary and Middle Schools. High Schools for boys and girls College Theological Seminary and Classes. Industrial teaching and work is done in three Girls Orphanages in the Women's Industrial Home and at Rovalpura which last includes the Mission Press and the School for the blind. The Medical work is large chiefly among women.

Secretary Rev J. Fraser Campbell D.D.

Ratlam (J).

THE GERMAN EVANGELICAL SYNOD OF NORTH AMERICA—Commenced work in the C.P. in 1865. The mission staff numbers 23 Indian Christian workers 310. Communicants 1,815. Total Christian community 4,608. Organized Churches 6. One Theological school with 10 students. One High School with 90 students and 84 other schools with 3,938 students. The mission has 2 Hospitals and 6 Dispensaries which in 1914 treated 18,013 patients.

Secretary Rev F. A. Goetsch Bismarck.

THE WELSH CALVINISTIC METHODIST MISSION (OR WELSH PRESBYTERIAN MISSION) established in 1840 with a staff of 37 Missionaries, 511 Native workers occupies stations in Assam in the Khasi and Jaintia Hills the Lushai Hills and at Sylhet and Cachar. The Khasi language has been reduced to writing. The Bible translated and many books pub-

lished in that language by the Mission. Communicants number 9,516 the total Christian community 30,000, organized Churches 391, self-supporting Churches 30, Elementary schools number 407 scholars 10,183, Boarding schools 3 scholars 620 in addition to 1 Industrial school, 4 Training institutions and 1 Theological Seminary. One Hospital and 3 Dispensaries provided for 6,011 patients for the past year.

Secretary Rev J Ceredig Evans, Shillong.

THE ARNOT MISSION of the Reformed Church in America (Dutch) organised in 1868

occupies the Aroor and Chittoor districts in S India with a staff of 29 Missionaries and 504 Indian ministers and workers. Churches number 19, Communicants 3,938, total Christian community 11,298. Boarding schools 11 scholars 628. Theological school 1 students 37. High schools 4 scholars 1,219. Training schools 2 students 44. Industrial schools 2 pupils 95. Elementary schools 181 scholars 6,040. Three Hospitals, 7 Dispensaries with staff of 38 provided for 2,217 in patients and 82,052 out patients for the past year.

Secretary Rev H J Scudder M.A. & B.D. Ponnalur S India.

CONGREGATIONAL SOCIETIES

THE AMERICAN BOARD OF COMMISSIONERS FOR FOREIGN MISSIONS.—Has two large Missions, the American Marathi Mission and the Madras Mission. The Marathi Mission includes a large part of the Bombay Presidency with centres at Bombay, Ahmednagar, Satara and Sholapur was commenced in 1817, the first American Mission in India. Its activities are large and varied. The staff at the beginning of 1916 consisted of 48 missionaries and 461 Indian workers operating in 104 outstations exclusively of Bombay City. Organized Church a number 63 with 7,841 communicants and 6138 adherents. There is a leper work at Sholapur. The Educational work embraces 21 Boarding schools with 4,400 pupils, 100 ordinary schools with 6,871 boys and girls under instruction, three of whom are non-Christians. A large Theological Seminary at Ahmednagar trains for the Indian Ministry. Aramaic work and Industrial work are vigorously carried on the latter embracing carpentry, metal hammering, lace work, carpet weaving and extensive work on an improved hand loom. A school for the blind is conducted on both Educational and Industrial lines. 4,081 patients were treated in the Hospitals and Dispensaries of the Mission last year. The Mission has for 70 years published the Dnyasnada, the only combined English and Marathi Christian weekly newspaper. Special evangelistic work is carried on amongst the tribes known as the Bhils and Vangs. This Mission was the first to translate the Christian scriptures into the Marathi language.

THE MADRAS MISSION.—In the 8 Madras District commenced in 1844 has a staff of 49 missionaries and 810 Indian workers, operates in the Madras and Ramanad districts and has a communicant roll of 7,804 with 23,937 adherents and 55 organized churches many of which are entirely self-supporting and self governing. Schools number 425 with 12,819 pupils. There is a Christian College at Madras, as also Hospitals for men and women at Pasmalai and a Theological Institution, Industrial School, Teachers Training School and Printing Press. The Secretary of the Marathi Mission is the Rev A H Clark, Ahmednagar and of the Madras Mission the Rev C S Vaughan, Manamadurai.

The Aroor Mission commenced under the American Board was transferred to the Reformed Church of America in 1861.

THE SCANDINAVIAN ALLIANCE MISSION OF NORTH AMERICA.—Embraces two Branches

one in Bengal and the other in Khandesh. The total mission staff is represented by 11 missionaries and 27 Indian workers. There are 30 Communicants and a Christian community of 50. A Boarding School, 1 Industrial School and 11 Elementary Schools provide for 150 pupils.

Secretaries Rev O A Dahlgren, Navapur, Khandesh and Miss H Abrahamson, Domar, Lungal. The Branch in Khandesh co-operates with the Swedish Alliance Mission and both missions having a united yearly conference.

THE SWEDISH ALLIANCE MISSION.—Working among the Bhils in West Khandesh has 14 missionaries and 26 Indian workers. There are 5 churches with a total membership of 400 of whom 213 are Communicants. There are 3 Elementary schools, one Boarding School and one Industrial School. The pupils are 60.

Secretary Rev C A Bjork, Nandurbar, West Khandesh.

THE SCANDINAVIAN ALLIANCE MISSION HIMALAYAS (Himalish Branch). The total mission staff is represented by nine missionaries and six native workers. There are about 80 Communicants, five churches and a Christian community of about 100. One Orphanage with 23 orphans, one Kindergarten school, one Upper Primary school and three Day schools with about 70 pupils. Acting Secretary Miss Clara Hertz, Lachung, Gangtok, Sikkim.

THE LONDON MISSIONARY SOCIETY.—Commenced work in India in 1798 and occupies 10 centres in N India, 12 in S India and 7 in Travancore. The Mission engages in every form of Missionary activity. The European staff numbers 223 Indian workers 2,004. Organized Churches 490, Communicants 18,748 and Christian community 118,575. There are 4 Christian Colleges, students 159, 3 Theological Institutions, students 41, 4 Training Institutions, pupils 114, 22 High schools, pupils 4,549, 2 Boarding schools, scholars 1,167, 9 Industrial schools, pupils 116 and 86 Elementary schools with 35,776 scholars. In Medical work Hospitals number 15, Dispensaries 15, qualified doctors 10 and 3,997 in patients and 130,220 out patients for the year.

The main centres of the Mission in N India are at Calcutta, Benares and Almora. The Bhawanipur Institution at Calcutta is now a Teacher Training College. Evangelistic work is carried on amongst the thousands of pilgrims visiting Benares and Almora is noted for its

Hospital and Lepers Asylum. Special efforts are made amongst the KAIRA SUDRAS and the aboriginal tribes known as the Malhwars, Cherors and Pankas. The 8 India District is divided into the Kankares, Telugu and Tamil areas, with 13 stations and 472 outstations. At Nagrecoil (Travancore) is the Scott Memorial College with 984 students, a Church and congregation.

said to be the largest in India, and a large Printing Press, the centre of the S Travancore Tract Society.

V India Secretary Rev J H Prown B.A. B.D. Calcutta

S India Secretary Rev L P Rice B.A., Langa-lon.

ALL INDIA MISSIONS.

THE CHRISTIAN AND MISSIONARY ALLIANCE.—Dates from the year 1893 under the name of the India Missionary Alliance but a number of its missionaries were at work in Berar Province much earlier. The work is confined to the provinces of Berar, Khandesh and Gujarat. There is a staff of 72 missionaries and 75 Indian workers. The number of Mission stations is 20 with additional outstations. There are 4 orphanages, 2 for boys and 2 for girls, 3 training schools for Indian workers and 1 English congregation at Bhusawal. Secretary Rev E R. Corner Khamgaon Berar.

THE CHURCH OF THE BRETHREN (AMERICAN).—Opened work in 1895 and operates in the Southern part of Gujarat, Khandesh and Thana Districts. Its staff numbers 29 including missionaries, wives and 105 Indian workers. The baptised (unmarried) membership stands at 1124. Education is carried on in 2 Girls Boarding schools, 4 Boarding schools for boys and 81 Village Day schools. Industrial work is connected with four of the schools; and a Farm Colony is established at Umbhal.

THE POONA AND INDIAN VILLAGE MISSION.—Founded in 1893 operates in the Poona, Satara and Sholapur Districts with 23 European and 22 Indian workers. The number of Indian Christians is 40. The main work is evangelism of the villages with Women's Zenana work and Village schools. There are 4 Village Dispensaries, including a large medical work in the great pilgrimage city of Pandharpur and a hospital at the headquarters of the Mission, Nasapur in the Bhosle State. Secretary Mr J W Stothard, Nasapur Poona District.

THE AMERICAN CHURCHES OF GOD MISSION.—Has two missionaries at Dacca, Bengal.

THE INDIAN CHRISTIAN MISSION.—Founded in 1895 has 31 Organised Churches, 11 Missionaries, 38 village stations, 1070 Communicants, and 24 Primary schools in the Elore district, S India. Stations also in Berenak, Kumon N India, and Nuwara, Elyia, Ceylon. Secretary A S Pavister Nuwara Elyia Ceylon.

There are 3 PENTECOSTAL MISSIONS at work. The Pentecostal Mission in W. Khandesh and Thana Districts, the Pentecostal Church of the Nazarine Mission at Buldana, Berar and the Pentecost Bands of the World Mission with a Boys Orphanage at Dondi, Lohara, C P and a Girls Orphanage at Raj Nandgaon, headquarters.

THE INDUSTRIAL EVANGELISTIC MISSION.—Is engaged mainly with orphan children and owes its rise to the famine of 1897 and 1900. It numbers about 180 Christians in all stations, the principal of which is Dehra Dun. Director Pastor J C Lawson, Dehra Dun.

THE SANAPPUR AND LOHAGHAT DISTRICT BIBLE AND MEDICAL MISSION.—Was established at Lohaghat, 48 miles from Almora, in 1910. Amongst the faith missions are the Vanguard Mission at Sanjan Thana District with 6 Missionaries and the Church of God Mission with 7 Missionaries at Labora. The Burning Bush Mission has a staff of 8 Missionaries at Allahabad. The Tein Border Village Mission is the only Christian enterprise in the Himalayan States. State of that name its agents are stationed at Landour and have translated portions of the New Testament into the Tein Garhwah language.

THE HUPHIZIRAH FAITH MISSIONARY ASSOCIATION has 14 missionaries. Agent D W Zook Adra B N Ry.

THE LIBERTY MISSION.—Has 5 Missionaries with headquarters at Darjeeling and Tibet as its objective. Secretary Miss J Ferguson Darjeeling.

THE INDIAN MISSIONARY SOCIETY OF TIVRE VALLEY (DOBNABAL MISSION).—Opened in 1904 operates in the Warangal District of the Nizam's Dominions. It is the missionary effort of the Tamil Christians of Tinnevely. There are now 1550 Christians in 47 villages. Secretary Mr J Anbudavan B.A. Tel. Palamcottah.

THE MISSION TO LEPERS.—Founded in 1874, is an interdenominational and International Society for the establishment and maintenance of Asylums for Lepers and Homes for their untainted children working largely in India, China, and Japan. Its work in India is carried on through co-operation with 29 Missionary Societies. The Mission now has 40 Asylums of its own with over 3500 inmates, and is aiding or has some connection with work for lepers at 20 other places in India. In the Mission's own and aided Asylums there are about 3100 Christians. The total number of lepers reached by the Mission in India is about 5000.

An important feature of the work of the Mission is the segregation of the untainted or healthy children of lepers from their diseased parents. 600 children are thus being segregated and saved from becoming lepers.

The Mission very largely relies on voluntary contributions for its support. *Patrons.* The Dowager Duchess of Dufferin and Ava, *Presidents.* The Primate of Ireland, *Head Office.* 8 North Bridge, Edinburgh. Mr W. C. Bulley, General Superintendent, Organising Secretary Mr John Jackson, F.R.S. 33 Henrietta Street, Covent Garden, London. *Secretary for India.* Mr W. H. P. Anderson, Poona.

THE REGIONS BEYOND MISSIONARY UNION.—An interdenominational Society commenced work at Motihari, Behar in 1900 and now occupies 4 stations and 7 outstations in the Champaran and Saran Districts, with a staff

of 18 Europeans and 34 Indian workers. There are 31 Elementary schools, with 517 pupils, a Girls and a Boys Orphanage and Boarding school communicants number 50.

THE NATIONAL MISSIONARY SOCIETY OF INDIA—Established 1905 it has a staff of 21 Indian Missionaries operates in Karwar, Oskra (Punjab) and Omalur (Madras). Communicants number 125. Christian community 1,500. Elementary schools 10. Dispensary patients 1,700. *Secretary* K. T. Paul, Esq. B.A. L.T., Madras S.W.

THE SEVENTH DAY ADVENTISTS—Established 1893 have 44 Missionaries in various parts of India. Communicants 221. Christian community 1,034. Churches 2. Elementary schools 4. Hospitals 2. Dispensaries 2. Patients 1,150. *Secretary* Rev J. J. Shaw. Kirkville House Mussoori.

THE AMERICAN MISSIONARY MISSION—Established 1841 works in the C. Province. Mission staff number 20. Indian workers 80. Church members 410. 1. Industrial Training Institution 1. High School 1. Talk School 1. Orphanage 1. Widows Home 1. Lep. Asylum 1. Elementary Schools 8. Dispensaries 1. Hospital 1. *Superintendent* Rev M. C. Lapp. P. O. Dhunhuri C.I.

THE MISSIONARY MISSION (GENERAL) OF FRANCE—Started in 1801 in the C. Province. Workers number 11. Lep. Medical Orphan and village work carried on. From the Lep. Asylum 118 have been baptised. *Secretary* Rev P. W. Penner Jangir C.P.

THE KURKU AND CENTRAL INDIA HILL MISSION—Established 1890 in the C. P. and Berar has a mission staff of 22. Indian workers 17. Churches 1. Communicants 10. Christian community 30. Boarding 1. Industrial and 4 Elementary schools with 114 pupils. *Secretary* Mr Carl Wydner Elkhapur Berar.

THE CEYLON AND INDIA GENERAL MISSION—Established 1893, occupies stations in India in the Coimbatore and Anantapur Districts. Mission staff 23. Indian workers 50. Churches 10. With Communicants 256 and Christian community 678. Orphanage 3. Elementary schools 14. pupils 325.

Secretary Rev D. Logan Coonoor Nilgiris.

THE BOYS CHRISTIAN HOME MISSION—Owes its existence to a period of famine was commenced in 1893. Mission staff 8. Indian workers 20. There are two Elementary schools with 80 children. Orphan and Widows Homes and 20 in the Homes at Dhond Bahrach and Orad, where Industrial Training is given. *Director* Mr Albert Norton Dhond Poona Dist.

Ladies Societies

ZENANA BIBLE AND MEDICAL MISSION—This is an inter-denominational society with headquarters in London working among women and girls in seven stations in the Bombay Presidency one in Madras fourteen in United Provinces and five in the Punjab. There are 89 European Missionary Ladies on the staff and 22 assistant missionaries 210 Indian workers teachers and nurses and 77 Bible women. During 1913 there were 2,218 in-patients in the five hospitals supported by the Society (Naik, Benares, Jampur Locknow and Patna) and 2,932 out-patients. In their

56 schools were 8,880 pupils, while 174 women were under training as teachers. The evangelistic side of the work is largely done by homes to home visitation and teaching the women in Zenanas. 3,242 women in 2,682 houses were so taught.

THE LUDHIANA ZENANA AND MEDICAL MISSION has removed its headquarters to Lahore leaving only one Home Missionary in Ludhiana who has charge of the Branch Dispensary at Gill and there is one Bible woman working in the city of Ludhiana. Four missionaries are in Lahore and work is being carried on in the Lahore District in connection with the Presbyterian Mission.

The Missionary Settlement for University Women was founded in Bombay in 1895 to reach the higher class of Indian ladies. Its activities now include a hostel for women students, in addition to educational social and evangelistic work. *Secretary* Miss Dobson Girgaum Bombay.

THE MUKTI MISSION the well known work of Pandita Ramnath enables upwards of 350 widows destitute wives and orphans to earn a comfortable living by means of industrial work organized by the Pandita supported by a good staff of Indian helpers. A large staff of European Missionary ladies do evangelistic work in the surrounding Kidgion Poona District.

Disciple Societies

The India Mission of the Disciples of Christ (Foreign Christian Missionary Society of Cincinnati Ohio) and Christian Women's Board of Missions of India combined commenced work in 1882 its area Central and United Provinces number of Indian Churches 18 and in need communicants 139. Its staff included 10 Missionaries wives 67. Asst missionaries 3 and Indian Workers staff 297. There are 7 Hospitals 17 Dispensaries with 50,118 in-patients and out-patients for the past year. Three Orphanages and an Industrial Home show 440 inmates. Two Lep. Asylums with 112 inmates. In connection with the Industrial work a farm of 400 acres has been taken at Damoh. There are 8 Middle schools 41 Primary schools with 8,126 scholars. An active zenana work is carried on.

The Australian Branch has three Mission stations in Poona District. The Great Britain and Ireland branch has two mission stations, one in Mirzapur District U.P. and one in Palam District Orissa. These have no organic connection with the India Mission of the Disciples of Christ.

Secretary Rev W. B. Alexander B.A. Damoh C.I.

Undenominational Missions

THE CENTRAL ASIATIC MISSION with a Church Dispensary and School is based on the N.W. Frontier conducted on the lines of the China Inland mission and has Afghanistan as its objective.

The Friends Foreign Missionary Association with Headquarters at Hoshiarpur, Central Provinces commenced in 1874. Work has recently been opened up in the Gwalior and Bhopal States. There are 5 Churches, 27 Missionaries, 195 members, Orphanages for Boys and Girls 1. Anglo-Vernacular school, 15 Day schools, one High School and one Zenana

Hospital with a general dispensary connected with the Mission in addition to a self-supporting weaving community at Itard and Industrial Works and a Farm Colony at Hosanabad. **Secretary** Mr Henry I. Robson Sahagpur C P.

The American Friends Mission with 5 missionaries is working at Newgong. **Secretary** Miss D. Fisher Newgong O I.

The Old Church Hebrew Mission was established in 1858 in Calcutta, and is said to be the only Hebrew Christian Agency in India. **Secretary** J. W. Pringle, Esq. Calcutta.

THE OPEN BRETHREN—Occupy 46 stations in the U. Provinces, Bengal & Maratta, Godavari Delta, Kanara, Tinnevely, Malabar Coast, Colimabators and Nilgiri Districts. They hold an annual Conference at Bangalore.

Lutheran Societies.

(Several of the German Missions mentioned below have suspended or curtailed their work.)

The American Evangelical Lutheran Mission General Council founded in 1844 for the (Cochin and Kistna Districts has its Headquarters at Rajamundry. Its staff consists of 127 including missionaries wives and Lady Doctors with 484 Indian Workers. The membership is 24,680. There are Boys and Girls Central Schools. Mission Press a well-equipped hospital and Book Depot at Rajamundry and a High School at Peddapur. **Chairman** The Rev C. F. Kuder M. A. Rajamundry.

The General Synod Section of the above has its headquarters in Guntur founded in 1842. Its Christian community numbers 46,594, with 16,242 communicants, 27 missionaries inclusive of wives and 815 Indian workers showing an increase of 61 per cent during the past ten years. The following institutions are connected with the Mission: a second grade College, High school for Girls, Hospital for women and children, Normal training School and Industrial School. **Secretary** the Rev Victor McCauley Guntur.

THE EVANGELICAL NATIONAL MISSIONARY SOCIETY OF SWEDEN founded in 1856 occupies the districts of Betul, Chhindwara and Saugor in the Central Provinces. There are 1,600 Church members and 11 Indian churches. The staff numbers 53 including women with an Indian staff 150. Schools number 41 with 1,356 children. Only two of the schools are Secondary all the rest are Primary Schools. There are small dispensaries at most of the stations. **Secretary** Rev A. G. Danielson, D. D. Chhindwara C P.

The Hermannsburg Evangelical Lutheran Mission began its work in India in 1866 and operates in the South Nellore, the East Chittoor and South East Cuddapa Districts. There are 22 Indian Churches, 18 European Missionaries and 178 Indian workers. Church members number 3,170. Women's work is done in 5 stations with a large Industrial school for 70 girls in a fourth in addition to Zenana and Educational work. There are 91 Lower grade Elementary schools, 1 High school, 1 Lower Secondary and 9 Higher grade schools and a Theological Seminary and Training school. A Leprosy Asylum is stationed at Kodur with a Dispensary and a large Industrial school at Nayadupeta. Since the beginning of 1914 a

part of the field of the Hermannsburg Mission has been ceded to the Ev. Luth. Joint Synod of Ohio and other States in U. S. America, who had expressed the wish to enter the field. Kodur and Puttur with the leprosy asylum at Kodur was ceded to them with 2 European missionaries, 26 Indian workers and 424 church members. The Hermannsburg Mission's secretary is at yet acting for the Ohio Mission also. **Secretary** Rev J. Rohwer Gudur Nellore Dist. Madras.

The Schleswig Holstein Evangelical Lutheran Mission commenced in 1851, operates in the Vizagapatam District. There are 12 stations, a total Missionary Staff of 44 with 441 Indian workers. The growth in the Christian population has been from 1,580 in 1801 to 16,000 in 1914. Communicants number 4,140 and Catechumens 7,862. Education work comprises: 1 Theological Seminary, 1 Secondary, 1 Industrial and 100 Elementary schools providing for 2,716 pupils. There are 9 Dispensaries with 50,000 patients for the year. English Services are held in the Mission Church at Jevpor. **Secretary** Rev J. Th. Timmeke Koraput Vizagapatam.

GERMAN EVANGELICAL LUTHERAN MISSION GERMAN DOCKERS—The mission commenced in 1834 and is confined to the Tamil speaking areas, chiefly in the Madras Presidency with an Indian Minister and Church in addition in Rangoon. The total European staff number 31, ordained Indian Ministers 2, and 97 Indian workers. Organized Churches 33 places of worship 221. Baptized membership 18,888. There are 226 boys schools (including 4 Training an industrial and 4 Secondary schools) and 23 Girls schools (including an industrial school). The teaching staff numbers 494 and pupils 10,168. Zenana work is actively prosecuted. A Printing Press and Publishing House are established at Tranquebar. **President** Rev Th. Meyner Kilpauk Madras.

THE BASEL MISSION was commenced in 1834 and occupies 26 main stations and 128 out stations in the Coorg, S. Maharashtra, Nilgiris and N. and S. Canara districts of S. W. India. The total European staff numbers 169 with 1,110 Indian workers. There are 66 organized Churches with a membership of 19,762. Educational work embraces 204 schools (including 2 Theological, 9 Boarding and 4 High schools) with 16,870 Elementary and 3,150 Secondary school pupils and 831 scholars in Boarding Institutions and Orphanages. There are good Hospitals at Belgaum and Calicut under European doctors with 3 branch hospitals and 4 Dispensaries connected. 66,804 patients were treated last year. There is a Leprosy Asylum at Chayaru.

The Industrial work of the Mission is second to none in India and comprises 17 establishments embracing one mechanical establishment of a first rate order at Mangalore, 2 Mercantile branches, 7 Weaving and 7 The work establishments in the Kanara and Malabar districts employ number 3,638. A large Printing Press at Mangalore issues publications in the Kanara, Malayalam, Tulu and English languages. Owing to the interment of a number of missionaries belonging to the Basel Mission, it has been impossible to revise the above figures which are for 1914.

Secretary Rev A. Schmezer Mangalore.

THE CHURCH OF SWEDISH MISSION—Was founded in 1874 and operates in the Madras Tanjore Trichinopoly and Ramanam Districts. Since 1901 the Mission works independently (though in close relationship with the Leipzig Missionary Society. The staff numbers 12 baptised membership 2,887. Schools 57 with 1,180 pupils. *Secretary* Rev D. Bexell, Madras.

TAM MISSEKUI EVANGELICAL LUTHERAN MISSION—Is located in Arcot and Travancore with a staff of 15 Missionaries. One Training school 58 pupils and 41 Elementary schools with 1,717 pupils are connected with the Mission.

Secretary Rev G. Huebner, Nagercoil, Travancore.

THE DAVISH EVANGELICAL LUTHERAN MISSION—Established 1863 in South Arcot, work in there and in North Arcot on the Shervaraj Hills and in Madras has a total staff of 40 Missionaries and 200 Indian workers. Communicants 618. Christian community 1923. 1 High school 2 Boarding Schools 4 Industrial Schools. Elementary Schools 40. total scholars 2,887. Dispensary patients 4,643.

Chairman, Rev J. Bittmann 98 Broadway Madras (on furlough) *Ag. Chairman* Rev Knud Holberg 14 Rundalls Road Madras N.C.

THE GERMAN EVANGELICAL LUTHERAN (GOSSEN'S) MISSION—Founded 1838 occupies stations in Bengal, Bihar and Assam. The Mission staff numbers 92 Indian workers 1,017. Communicants 34,208. Christian community over 100,000. organized Churches 437. Theological and Teachers' Seminaries 66 pupils. Boarding Schools 89. Elementary Schools 277. Pupils in schools 9,355. Lepers asylum 728 inmates. 1300 schools in Ranchi and Purulia.

Secretary Rev Paul Wagner, Purulia, B. N. Riv. Manbhum Bihar. Head quarters Friedenau Berlin Germany.

THE SANTAL MISSION OF THE NORTHERN CHURCHES—(formerly known as the India Home Mission to the Santals)—Founded in 1867 works in the Santal Parganas (Jalpaiguri, Malda and Dinajpur). Works in principally among the Santals. The Mission staff numbers 19 Indian workers 264. Communicants 3,000. Christian community 18,000. organized churches 30. boarding schools 2. pupils 340. elementary schools 31, pupils 533.

Secretary Rev P. O. Bodding, Dumka, Santa Parganas.

Methodist Societies

The Methodist Episcopal Church began its Indian Mission in 1857 and with the exception of Assam, and the N. W. Frontier Provinces is now established in all the political Divisions of India. Its number of baptised Christians stands at 298,275 under the supervision of 240 ordained and 900 unordained Ministers. Schools of all grades number 1,569 with 39,087 students. Sunday School scholars stand at 128,000 and young peoples societies at 604 generally known as Epworth Leagues. Thirty Anglo Indian Congregations are found in the larger Cities, with one College 6 High schools, and numerous Middle schools for this class. For Anglo Vernacular Education the mission has 8 Colleges, 18 High schools and 62 schools of Lower grade. The net increase from the non-

Christian races has been at the rate of 16,000 per annum, for the last decade. The Imbelia Theburn Training College at Lucknow is a large Institution. There are large printing presses at Calcutta, Madras and Lucknow.

In Burma there are 9 schools with 1,484 pupils. a large Boarding and Day school for European Girls at Rangoon, a hill station Boarding school for Girls at Thanduang, and an Anglo Indian Church at Rangoon.

While financially supported by the Board of Foreign Missions of the American Methodist Episcopal Church ecclesiastically the Church in India is independent of foreign control being under the supervision of its own bishops, viz. *Bishop* F. W. Warner, Lucknow. *Bishop* J. E. Robinson, Bangalore and *Bishop*, J. W. Robinson, Bombay.

The American Wesleyan Church with 5 Missionaries, has in recent years taken over an independent Mission at Pardi and Daman. Gujerat District. *Secretary* Rev A. E. Ashton, Pardi.

The Reformed Episcopal Church of American (Methodist) at Lalpur and Lucknow U. P. has 2 Missionaries 4 Orphanages and a membership of nearly 100.

THE WESLEYAN METHODIST MISSIONARY SOCIETY commenced work in India in 1817 (1818 in 1814). The Mission in India is organized into 10 District Synods with 3 Provincial Synods. There is a large English work connected with the Society 20 ministers giving their whole time to Military work and English churches.

The districts occupied include 64 main stations in Bengal, Madras, Mysore, Bombay, Punjab, Central Provinces, Hyderabad (Nizam's Dominions), Trichinopoly and Burma. The European Staff numbers 145 with 2,487 Indian workers. Communicants 18,987 and total Christian community 45,872. Organized Churches 68.

Educational work comprises 4 Christian Colleges students, 500. 19 Theological Institutions pupils, 80. 11 Training Institutions pupils 96. 20 High Schools, pupils, 5,129. 71 Boarding school scholars 2,478. 10 Industrial schools pupils 602. 11,17 Elementary schools with 57,388 scholars. In Medical work there are 12 hospitals, 22 dispensaries, 18 qualified doctors, 1,954 in patients and 75,708 out-patients for the year.

The above particulars are those published for 1914.

Vice Chairman of General Synod—Rev J. Cooling, B.A. Madras.

The Women's Foreign Missionary Society of the M. E. Mission is divided into 7 Conferences and is co-extensive with the main work of the Mission. Upwards of 172 Lady Missionaries are engaged in Educational, Zenana, and Medical work. The Secretary for the Bombay Conference is Miss A. A. Abbott, The Marine, Bellasis Road, Bombay.

THE FREE METHODIST MISSION OF N. America—Established at Yeotmal, 1893 operates in Berar with a Staff of 19 Missionaries and 16 Indian workers. Organised church 1. Communicants 70. 1 Industrial and 6 Elementary schools, with 125 pupils.

Secretary Miss L. D. Collins, Yeotmal, Berar.

ROYAL ARMY TEMPERANCE ASSOCIATION

In 1822 there was started among the British troops in Agra a small Society under the leadership of Rev G. Gregson, Baptist minister, which after a short time took the name of the Soldiers' Total Abstinence Society.

For some ten years the Society struggled with varying success, spreading to other Garrison Stations, but at the end of that time though it had obtained recognition from the Horse Guards, and was the first Society whose Pledge was so recognised the membership was not more than 1,200. In the year 1873 however through the influence of the then Commander-in-Chief, the work was placed on a firmer footing the Rev. Gibson Gregson gave up his whole time to it, and by accompanying the troops through the Afghan War making an extended tour through Egypt, and bringing the work into close touch with troops both during peace and war in the year 1885, when he left the Society its number about 11,000 members. He was followed by a Madras Chaplain, who after two years gave place to the Rev. J. H. Bateson. In 1895 the late Lord Roberts, Commander-in-Chief, organized his Scheme for Regimental Institutes which have had a wonderful effect on the life of British soldiers in the East and the Total Abstinence Society was so far incorporated into the scheme as to be allowed ample accommodation and many practical benefits in every Unit. At the same time the name was changed to that of the Army Temperance Association and the work of various societies thus linked together under one organisation. The effect has been more than even the Insurance itself ever hoped for. The membership rose steadily from that date and still increases.

Growth of the Society.—In 1889 there were 12,140 members. In 1899 20,688 in 1909 30,220. In 1913-14 the total was 35,000 or over 45 per cent of the total garrison in India. In 1908, the Secretary having retired after 20 years work the Rev. H. C. Martin, M.A., a Chaplain in Bengal, was selected by H. E. Lord Kitchener to the post of Secretary. Twenty years ago the Association, which has now for some years been the Royal Army Temperance Association with the Patronage of King Edward VII, and later of the King, Emperor George V., organised a similar Society in Great Britain, with headquarters in London from which the troops in South Africa, the Mediterranean, etc. are controlled so that the whole British Army receives the attention of the Association.

Varied Activities.—What primarily has been the effort of the Association, namely the decrease of Intemperance and promotion of sobriety among soldiers has gradually grown into work of every kind, in the interests of soldiers' promotion of sport, occupation of spare time assistance towards employment in Civil Life, advice and information on the subject of Emigration provision of Furlough Homes, all tend to enlist the support of officers and men in the Association and add to its value to them, and to the efficiency of

its work, generally. The wonderful change that in late years has taken place in the character of the British Army in India especially is due to various causes including the increased interest in games and sports, the spread of education, the different class of men enlisted and so on, but the R. A. T. A. has always been given its full share among other causes by all authorities and Blue Books, and particularly by Officers commanding Divisions, Brigades and Units. These changes in conduct are seen most plainly in the increased good health of the Army in India.

Effect in the Army.—In the year 1889 1,174 British soldiers died in India and 1,800 were invalided unfit for further duty. In 1910 only 330 died and 484 were invalided. In 1889 688 underwent treatment for Delirium tremens, in 1910 only 37. In conduct the same difference is to be found as late as 1901 as many as 545 Courts Martial were held on men for offences due to excessive drinking in 1906 only 21. In 1901 2,231 good conduct medals were issued in 1910 there were 4,581. In regard to the character of the men themselves who become members of the Association, during their service we find that in 1912, 59 per cent on transfer from the Colonies obtained Exemplary characters and 91 per cent either Exemplary or Very Good the remainder were for the most part men who after some years of heavy drinking had towards the end of their service been persuaded to try and reform themselves but not soon enough to avoid the consequences of previous excess.

Organisation.—The War has necessarily brought increased work upon this society the results of which were very quickly apparent. Capacious reception sheds fitted up in the Docks at Bombay and Karachi proved of the greatest value to troops moving from India and to the large number coming in special arrangements and by a loan from the Government of India enabled the R. A. T. A. to organize branches in every Territorial unit immediately on arrival special attention being paid to small detachments and to the Hill stations. In consequence there were within a month of the completion of the Garrison over 70 Territorial Branches containing nearly 50 per cent of the new recruits and this has increased consistently ever since. In addition to covering all troops from India to Singapore the R. A. T. A. is the only Society working among the Troops of I.R.F.

D. The force in the Persian Gulf. Institutes have been opened and the cordial good will of the authorities enables the R. A. T. A. to provide many amenities to the very trying experience of this Force. The men relieved, and sent back to India for periodic rest in addition receive a warm welcome and entertainment at the hands of the Association. The following is the organisation of the Council and management—

Patron. His Majesty the King Emperor

President. His Excellency the Commander-in-Chief.

Members

The General Officers, Heads of Departments
Army Headquarters.
The General Officers Commanding Divisions
Two Officers Commanding Regiments
Officers of the R A M C and I M S
Two Regimental Quartermasters
Representatives of the various Churches.

Executive Committee

The Secretary Army Department
The Adjutant General
The Quarter Master General
The Director General, Military Works
The Military Secretary to the C in C

General Secretary Rev H C Martin M.A.

Treasurer Mr F L Shearman

Auditor Mr H C O'Brien

Bankers Alliance Bank of Simla.

Head Office Middlelands Simla.

Official Organ On Guard published monthly
(Rs 3 per annum)

THE ANGLO-INDIAN TEMPERANCE ASSOCIATION—Founded by the late Mr W. S. Caine M.P. is a Home Association which has been the means of establishing a network of Temperance Societies throughout the Indian Empire and has provided a common platform upon which Christians, Hindus, Mahomedans and Parsis unite for the moral elevation of the Indian peoples. There are 280 Indian Societies affiliated with the Association. The President is Sir J. Herbert Roberts Bart M.P. and Secretaries, Sir Bhulchandra Krishna, Kt L.M. (Bombay), and Mr John Turner Rae (London). The interests of the Association are especially represented in Parliament by the President, and the Rt. Hon. T. R. Fergusson M.P. Mr J. Herbert Lewis M.P. and the Rt. Hon. Sir Thos. Whitaker M.P. all of whom are members of the Association's Council.

THE ALL-INDIA TEMPERANCE CONFERENCE.—Growing out of the Association mentioned above and in closest relation with it is the All India Temperance Conference formed in 1907, which meets every year as a matter of convenience at the same time and place as the Indian National Congress, but having no official connection with it. The President is elected annually. The President for 1914 was

the Rev Herbert Anderson. The membership of the Conference is the 280 Indian Temperance Societies affiliated with the Anglo-India Temperance Association as above from each of which delegates are sent to the Annual Meeting of the Conference. Special Councils embracing Presidency Societies are established at Bombay, Allahabad, Calcutta and Madras, each of which has its own local President, Secretary and Committee. The Bombay Temperance Council was inaugurated in 1897. It consists of delegates elected by about 25 different temperance, religious and philanthropic societies at work in Bombay, Poona, Ahmedabad and Surat including several of the Christian churches, the International Order of Good Templars, the International Order of Rechabites and the Women's Christian Temperance Union. The medium of communication between the Societies composing the Conference is the *Abstar*, published quarterly from England by the A. I. T. A. Amongst the general aims of the Conference may be mentioned—

- The separation of the licensing from the revenue.
- The doing away with the present system of license auctioneering.
- The reduction of the present number of liquor shops and the prevention of the formation of new ones in important positions especially in the crowded areas.
- The later opening and the earlier closing of liquor shops, and the entire closing of them on public holidays.
- The introduction of Temperance Teaching in the Government Elementary Schools and Colleges which despite the desire of Government expressed in their Circular letter No. 780/37 of 12th Sept. 1907 to deal with the subject of Intemperance in a few sensible lessons in the sanctioned Readers has not yet been adequately treated and as in the corresponding schools in England.

The general spread of Total Abstinence principles depends more largely upon the individual Societies constituting the Conference than upon the official body. Amongst the methods are lantern addresses, dramatic representations and singing by itinerant preachers. Twelve paid lecturers travel through various districts holding public meetings and addressing the masses wherever possible. Educational work is especially to the front in the Punjab district through the Amritsar Society.

CREMATION

Cremation as a means of disposing of the dead is commonly adopted throughout India by the Hindus but has been little adopted among the Europeans in India. A crematorium was started some years ago in Calcutta close to the Lower Circular Road Cemetery at a cost of Rs. 40,000. But the return for this expenditure is disappointing. Only five or six cremations take place in Calcutta each year in spite of the fact that the fee for cremation has been fixed by the Cremation Society of Bengal at the very low figure of Rs. 50

subject to reductions in the case of poor families. The reason for this is thought to be that, when possible Europeans go home to die, and the Native Christians and Europeans are very largely Roman Catholics among whom a prejudice exists against this form of the disposal of the dead. In Bombay arrangements have recently been made for a small area in the Sewri Cemetery to be waived in and for cremations to be carried on within it in the primitive style of the country but in such a way as to preserve the ashes.

Warrant of Precedence in India.

(Brought up to 1 January 1910.)

VICTORIA by the Grace of God of the United Kingdom of Great Britain and Ireland Queen Defender of the Faith, Empress of India—

To all to whom these presents shall come

WHEREAS it hath been represented unto Us that it is advisable that the rank and precedence of persons holding appointments in the East Indies as regulated by Our Royal Warrant dated the 18th day of October 1876 should be altered. We do therefore hereby declare that it is Our will and pleasure that in lieu of the table laid down in Our said recited Warrant the following table be henceforth observed with respect to the rank and precedence of the persons hereinafter named viz—

- 1 Governor-General and Viceroy of India
- 2 Governors of Madras Bombay and Bengal
- 3 President of the Council of the Governor-General
- 4 Lieutenant-Governor when in his own territories.
- 5 Commander in Chief in India.
- 6 Lieutenant-Governor
- 7 Chief Justice of Bengal
- 8 Bishop of Calcutta Metropolitan of India
- 9 Ordinary Members of the Council of the Governor-General
- 10 Commander in Chief of Her Majesty's Naval Forces in the East Indies
- 11 Chief Justice of a High Court other than that of Bengal.
- 12 Bishops of Madras and Bombay
- 13 Ordinary Members of Council in Madras Bombay and Bengal
- 14 General Officers Commanding the Northern and Southern Armies Chief of the General Staff
- 15 Chief Commissioners of the Central Provinces and Assam, Residents at Hyderabad and in Mysore and Agents to the Governor-General in Rajputana, Central India and Baluchistan Executive Members of the Council of the Lieutenant-Governor of Bihar and Orissa, the Agent to the Governor-General and Chief Commissioner of the North West Frontier Province (NOTE—When within their own jurisdiction these officers take precedence of those mentioned in Article 14)
- 16 Puisne Judges of a High Court
- 17 Chief Judge of a High Court
- 18 Military Officers above the rank of Major-General.
- 19 Comptroller and Auditor General
- 20 Additional Members of the Council of the Governor-General for making Laws and Regulations Chairmen of the Railway Board
- 21 Bishops of Lahore, Rangoon, Nagpur and Lucknow
- 22 Secretaries to the Government of India, Joint Secretary to the Government of India in the Public Works Department and Members of the Railway Board.
- 23 Commissioner in Sind.
- 24 Judges of a High Court, Recorder of Rangoon and Judicial Commissioners, Burma
- 25 Chief Secretaries to the Governments of Madras and Bombay, Chief Commissioner of Delhi.

26 Major Generals, Members of a Board of Revenue Commissioners of Revenue and Customs Bombay Financial Commissioners Punjab and Burma the Inspector-General of Irrigation and the Director General Indian Medical Service

27 Judicial Commissioners, including Additional Judicial Commissioners of Oudh the Central Provinces and Sind

28 Additional Members of the Councils of the Governors of Madras Bombay and Bengal for making Laws and Regulations Members of the Legislative Council of a Lieutenant-Governor

29 Vice Chancellors of Indian Universities

FIRST CLASS

30 Members of the Indian Civil Service of 30 years standing

31 Advocate General, Calcutta

32 Commissioners of Divisions the Superintendent of Port Blair and Residents Political Agents and Superintendent drawing Rs 2,000 a month and upwards (not being Collectors or Deputy Commissioners of British Districts) within their respective charges the Revenue and Judicial Commissioners in Baluchistan within Baluchistan and the Agency Territories

33 Chief Secretaries to Local Governments other than those of Madras and Bombay

34 Surveyor General of India Directors-General of the Post Office of Telegraphs in India and of Railways Chief Engineers, first class the Directors of Railway Construction and Railway Traffic Accountants-General, Military and Public Works Departments Director Royal Indian Marine and Manager North Western Railway

35 Bishops (not territorial) under license from the Crown

36 Archdeacons of Calcutta Madras and Bombay

37 Brigadiers-General Consuls General

38 Commissioners of Divisions the Revenue and Judicial Commissioners in Baluchistan when in Kalat or Las Bela or elsewhere without the limits of his charge

39 Commissioner of Northern India Salt Revenue Opium Agents Benares and Bihar and Director Central Criminal Intelligence Department

40 Secretaries and Joint Secretaries to Local Governments and Private Secretary to the Viceroy

SECOND CLASS.

41 Members of the Indian Civil Service of 25 years standing and Colonels Consuls

42 Military Secretary to the Viceroy

43 Judicial Commissioners of the Hyderabad Assigned Districts and Baluchistan the Superintendent of Port Blair Residents, Political Agents and Superintendents drawing Rs. 2,000 a month and upwards (not being Collectors or Deputy Commissioners of British Districts)

44 Inspector-General of Forests in India, Director of the Geological Survey and Director-General of Education in India Sanitary Commissioner with the Government of India.

45 Standing Counsel to the Government of India.

46 Directors of Public Instruction, and Inspectors-General of Police and Prisons under Local Governments, and Accountants-General.

47 Survey Commissioner and Director of Land Records and Agriculture, Bombay Commissioners of Settlements and Controllers of Military Accounts.

48 Chief or Senior Civil Secretary to a Local Administration.

49 Chief Engineers second and third classes Deputy Surveyor General Deputy Director General of Telegraphs in India, and Director in Chief Indo-European Telegraph Department and Secretary to the Railway Board.

50 Divisional and District and Sessions Judges, Collectors and Magistrates of Districts Deputy Commissioners of Districts Deputy Superintendent of Port Blair and the Chief Officer of each Presidency Municipality within their respective charges Officers in charge of Zhoob Quetta Pishin and Thal Chotiali Districts throughout their respective charges.

51 Archdeacons of Lahore Lucknow Rangoon and Nagpur.

52 Deputy Secretaries to the Government of India and Director General of Commercial Intelligence.

53 The Senior Chaplains of the Church of Scotland in Bengal Madras and Bombay.

54 Remembrancers of Legal Affairs and Government Advocates under Local Governments Chief Conservators of Forests.

55 Officers in the First Class Graded List of Civil Offices not reserved for Members of the Indian Civil Service Controller of Printing and Stationery.

THIRD CLASS

56 Members of the Indian Civil Service of 18 years standing and Lieutenant Colonels.

57 The Deputy Director Royal Indian Marine.

58 The Assistant Director Royal Indian Marine.

59 Commanders and Inspectors of Machinery Royal Indian Marine.

60 Political Agents and Superintendents drawing less than Rs. 2,000 a month (not being Collectors or Deputy Commissioners of British Districts) within their own charges Political Agent in Kala District Judges in Lower Burma and Judge of the Small Cause Court Rangoon within their respective charges.

61 Secretaries to Local Administrations other than those already specified the First Assistant to the Agent to the Governor General in Baluchistan First Assistants to the Residents at Hyderabad and Mysore and to the Agents to the Governor General in Rajputana and Central India.

62 Consulting Engineers to the Government of India for Railways, Consulting Architect and Chief Inspector of Explosives.

63 Private Secretaries to Governors.

64 Military Secretaries to Governors.

65 Administrators-General.

66 Sanitary Commissioners under Local Governments Postmasters General the Comptroller Post Office and Conservators of Forests, first grade.

67 Directors of Public Instruction Inspectors-General of Police and Prisons under Local Administrations, Comptrollers and Deputy Auditors-General, and Deputy Director Central Criminal Intelligence Department.

68 Managers of State Railways other than the North Western Railway Chairmen of the Port Trust, Bombay and Rangoon and Chairman of the Port Trust, Calcutta.

69 Vice Chairman of the Port Trust, Calcutta, Directors of Traffic and Construction, Indian Telegraph Department Directors of Telegraphs first class Examiners of Accounts, Public Works Department first class Officers of the Superior Revenue Establishment of State Railways first class, first grade Superintendent Engineers, Public Works Department, first class Superintendents of the Survey of India Department first grade.

70 Inspectors-General of Registration and Directors of Land Records and Agriculture, and Excise Commissioners under Local Governments.

71 Senior Chaplains other than those already specified.

72 Sheriffs within their own charges.

73 Officers in the Second Class Graded List of Civil Offices not reserved for Members of the Indian Civil Service Political Agents and Superintendents in Baluchistan drawing less than Rs. 2,000 and Political Agents in Harard and Rangoon when outside their respective charges (unless their Army rank or standing in the Civil Service gives them a higher place) Actuary to the Government of India.

FOURTH CLASS

74 Members of the Indian Civil Service of 12 years standing and Majors Vice-Consuls District Judges in Lower Burma and Judge of Small Cause Court, Rangoon (outside their respective charge).

75 Lieutenants of over 8 years standing and Chief Engineers of the Royal Indian Marine Chief Accountant Office of the Director of Ordnance Factories.

76 Government Solicitors.

77 Inspectors-General of Registration Sanitary Commissioners, and Directors of Land Records and Agriculture under Local Administrations Civil Engineer Adviser to the Director of Ordnance Factories.

78 Officers in the Third Class Graded List of Civil Offices not reserved for Members of the Indian Civil Service Deputy Accountant Office of the Director of Ordnance Factories.

The entries in the above table apply exclusively to the persons entered therein and, while regulating their relative precedence with each other do not apply to the non official community resident in India the members of which shall take their place according to usage.

Officers in the above table will take precedence in order of the numbers of the entries. Those included in one number will take precedence under as according to the date of entry into that number.

When an officer holds more than one position in the table he will be entitled to the highest position accorded to him.

Officers who are temporarily officiating in any number in the table will rank in that number below permanent incumbents.

All officers not mentioned in the above table, whose rank is regulated by comparison with rank in the army to have the same rank with reference to civil service as is enjoyed by Military Officers of equal grades.

All other persons who may not be mentioned in this table to take rank according to general usage, which is to be explained and determined by the Governor General in Council in case any question shall arise.

Nothing in the foregoing Rules to disturb the existing practice relating to precedence at Native Courts, or on occasions of intercourse with Native, and the Governor-General in Council to be empowered to make rules for such occasions in case any dispute shall arise.

All ladies to take place according to the rank herein assigned to their respective husbands, with the exception of wives of Peons, and of ladies having precedence in England independently of their husbands and who are not in rank below the daughters of Barons, such ladies to take place according to their several ranks, with reference to such precedence in England, immediately after the wives of Members of the Council of the Governor-General.

Given at Our Court at Windsor this tenth day of December in the year of Our Lord One thousand eight hundred and ninety-eight and in the sixty-second year of Our Reign.

By Her Majesty's Command.
(Signed) GEORGE HAMILTON

Supplementary Graded List of Civil Offices not Reserved for Members of the Indian Civil Service Prepared Under the orders of the Governor General in Council.

*FIRST CLASS—(No 55 of the Warrant)
Assay Master of the Mint Calcutta and Bombay
Chief Justice of Presidency Courts of Small Causes.

Commissioners of Police Calcutta Madras Bombay and Rangoon

Controller of Printing and Stationery
Deputy Comptroller-General.
Director General of Archaeology
Director General of Statistics
Director of the Botanical Survey of India
Inspector General of Agriculture in India
Masters of the Mint Calcutta and Bombay
Meteorological Reporter to the Government of India

Superintendent of Revenue Survey Madras
Superintendent Trigonometrical Surveys

*SECOND CLASS—(No 73 of the Warrant)
Adviser on Chinese Affairs in Burma
Agent General in India for the British Protectorates in Africa under the Administration of the Foreign Office.

Chief Collector of Customs Purna
Chief Constructor of the Royal Indian Marine Dockyard at Bombay

Chief Inspector of Mines in India.
Chief Presidency Magistrate
Chief Superintendents of the Telegraph Department.

Collector of Customs and Salt Revenue Sind.

Collectors and Magistrates of Districts and Deputy Commissioners of Districts and of Settlements.

Conservators of Forests, 2nd and 3rd Grades

Deputy Accountants-General under Local Governments.

Deputy Directors of Telegraphs.
Deputy Inspectors General of Police
Deputy Superintendent of Port Blair

Directors of the Persian Gulf Section and of the Persian Section of the Indo-European Telegraph Department.

Director of Telegraphs, 2nd, 3rd and 4th Classes.

Divisional and District and Sessions Judges.
Examiners of Accounts Public Works Department, 2nd and 3rd Classes

Government Astronomers Madras
Government Emigration Agents at Calcutta for British (India and Natal and for Trinidad Fiji, Jamaica and Mauritius

Imperial Bacteriologist
Inspector of Mines to the Government of India

Librarian Imperial Library
Officers in charge of the Records of the Government of India

Officers of the Indian Educational Service and of the graded Educational Service drawing Rs 1,200 a month and upwards

Officers of the Superior Revenue Establishment of State Railways 1st Class 2nd and 3rd Grades

Principal of the Mayo College at Ajmere
Principal of the Rajkumar College at Rajkot
Reporter on Economic Products
Superintendent of the Royal Botanical Gardens Calcutta

Superintendents Geological Survey of India.
Superintendents of Revenue Survey and Assessment Bombay

Superintendents of the Survey of India Department 2nd Grade
Superintending Engineers, Public Works Department 2nd and 3rd Classes.

Under Secretaries to the Government of India.

*THIRD CLASS—(No 78 of the Warrant)

Agricultural Chemist
Assistant Directors of Dairy Farms
Assistant Inspector General of Forests
Assistant Secretaries to the Government of India.

Chief Chemical Examiner Central Chemical Laboratory Madras

Collector of Stamp Revenue, Superintendent of Excise Revenue and Deputy Collector of Land Revenue Calcutta

Commander of the steamer employed in the Persian Gulf Section of the Indo-European Telegraph Department.

Constructors of the Royal Indian Marine

* The entries in each class are arranged in alphabetical order

Dockyards at Bombay and Kidderpore.
 Deputy Administrator-General, Bengal.
 Deputy Collector of Salt Revenue Bombay
 Deputy Commissioner of Northern India, Salt Revenue.
 Deputy Commissioners of Police Calcutta and Bombay
 Deputy Commissioners of Salt, Abkari and Customs Department Madras
 Deputy Conservators of Forests drawing Rs. 800 a month and upwards.
 Deputy Director of Land Records and Agriculture, Madras and Burma.
 Deputy Director of the Imperial Forest School, Dehra Dun
 Deputy Directors of Revenue Settlements and Deputy Superintendents of Revenue Surveys Madras.
 Deputy Postmasters-General of the 1st 2nd and 3rd grades.
 Deputy Superintendents, Geological Survey of India.
 Deputy Superintendents Survey of India Department
 District Superintendents of Police drawing Rs. 800 a month and upwards
 Engineer and Electrician of the Persian Gulf Section of the Indo European Telegraph Department
 Examiners of Accounts, Public Works Department 4th class 1st and 2nd grades

Executive Engineers, Public Works Department, 1st and 2nd Grades.
 Inspector-General of Railway Mail Service.
 Judge of the City Civil Court Madras
 Judges of Presidency Courts of Small Causes, and First Judge of the Small Cause Court Rangoon
 Manager of the Cordite Factory Aruvankul.
 Officers of the Indian Educational Service and of the graded Educational Service, drawing less than Rs. 1250 a month, but more than Rs. 1000 a month
 Officers of the Superior Revenue Establishments of the State Railways Second Class 1st and 2nd Grades
 Paleontologist Geological Survey, of India
 Presidency Magistrates
 Protector of Emigrants and Superintendent of Immigration Calcutta
 Public Prosecutor in Mad
 Registrars to the High Courts and to the Chief Court Punjab
 Sub Deputy Opium Agent drawing Rs. 800 a month and upwards
 Superintendent of the Indian Museum
 Superintendent of Land Records and Agriculture in Mad
 Superintendents of Stamps and Stationery
 Superintendents Telegraph Department, 1st and 2nd Grades

SALUTES IN INDIA.

The following is the official table of salutes in Indian territories—a term which includes all the waters of India within three miles of the coast—Indian seas within which some of the salutes are to be given—extend from the North West entrance of the Straits of Malacca to Cape Comorin excepting Ceylon and from Cape Comorin to Aden including the Maldives and Laccadive Islands and the Persian Gulf

Persons.	No of Guns
Imperial Salute	101
The King and Emperor when present in person	101
Members of the Royal Family	31
Royal Standard and Royal Salute	31
Viceroy and Governor-General in India	41
Independent Asiatic Sovereigns	21
Other Foreign Sovereigns	21
Members of their Families and their Standards	21
Ambassadors	21
Governors of Presidencies	17
The President of the Council of India	17
Governor-General of Portuguese Settlements in India	17
Governor of Pondicherry	17
Governors of His Majesty's Colonies	17
Lieutenant Governors of Provinces in India	15
Commander in Chief in India (If a Field Marshal)	19
Commander-in-Chief in India (If a General)	17
Commander-in-Chief of His Majesty's Naval Forces	17
Generals and Admirals or their Flags	13

Members of the Viceroy Council	15
Prophetantaries and Lords	13
Lieut. Governors of His Majesty's Colonies	13
Vice-Admirals Lieut. Generals or their Flags	13
Agents to the Viceroy and Governor General	13
Agent to the Governor of Bombay in Kathiawar	13
Residents	13
Chief Commissioners of Provinces, and Commissioners of Sind	13
Members of the Executive Council of a Local Government	13
Rear Admirals & Major Generals or their Flags	11
Political Agents and Charges d'Affaires	11
Commodores of the first class and Brigadier-Generals	9
The Portuguese Governor of Damam	9
The Governor of Diu	9
Return salutes to Foreign Men-of-war	
Return salutes to Captains of the Navy, and Naval Officers of inferior rank	1

Salutes to Chiefs

Salutes of 21 guns
Baroda The Maharaja (1st war) of Hyderabad The Nizam of Mysore The Maharaja of
Salutes of 19 guns
Bhopal The Begum (or Nawab) of Gwalior The Maharaja (Rudhia) of Indore The Maharaja (Holkar) of Jammu and Kashmir The Maharaja of The Khan (Wali) of Kohapur The Maharaja of

Mewar (Udaipur). The Maharana of.
Travancore. The Maharaja of

Salutes of 17 guns

Bahawalpur. The Nawab of.
Bharatpur. The Maharaja of.
Bikaner. The Maharaja of.
Bundi. The Maharaja Raja of.
Cochin. The Raja of.
Cutch. The Rao of.
Jaipur. The Maharaja of.
Kanauj. The Maharaja of.
Kotah. The Maharaja of.
Morwar (Jodhpur). The Maharaja of.
Patiala. The Maharaja of.
Rewa. The Maharaja of.
Tonk. The Nawab of.

Salutes of 15 guns

Alwar. The Maharaja of.
Banswara. The Maharawal of.
Rhutan. The Maharaja of.
Datia. The Maharaja of.
Dewas (Senior Branch). The Raja of.
Dewas (Junior Branch). The Raja of.
Dhar. The Raja of.
Dholpur. The Maharaja Raja of.
Dungarpur. The Maharawal of.
Idar. The Maharaja of.
Jaisalmer. The Maharawal of.
Khalpur. The Mir of.
Kishangarh. The Maharaja of.
Oriha. The Maharaja of.
Partabgarh. The Maharawal of.
Hikim. The Maharaja of.
Siropi. The Maharaja of.

Salutes of 13 guns

Benares. The Raja of.
Cooch Behar. The Maharaja of.
Jaura. The Nawab of.
Rampur. The Nawab of.
Tippore. The Raja of.

Salutes of 11 guns

Ajmer. The Maharaja of.
Baoni. The Nawab of.
Bharatpur. The Thakur Sahib of.
Bijawar. The Maharaja of.
Cambay. The Nawab of.
Chamba. The Raja of.
Charkhari. The Maharaja of.
Chhatrapur. The Raja of.
Dharwad. The Raja Sahib of.
Faridkot. The Raja of.
Gondal. The Thakur Sahib of.
Janjira. The Nawab of.
Jhabua. The Raja of.
Jhalawar. The Raja Raja of.
Jind. The Maharaja of.
Junagadh (or Junagarh). The Nawab of.
Kahlur (Bilaspur). The Raja of.
Kaporthala. The Maharaja of.
Mandi. The Raja of.
Manipur. The Raja of.
Morvi. The Thakur Sahib of.
Nabha. The Maharaja of.
Naraingarh. The Raja of.
Nawanagar (or Nawanagar). The Jam of.
Palaspur. The Diwan of.
Panna. The Maharaja of.
Porbandar. The Raja of.
Puducherry (or Pondicherry). The Raja of.
Radespur. The Nawab of.

Rajgarh. The Raja of.
Rajpipla. The Raja of.
Rallam. The Raja of.
Sailana. The Raja of.
Sambhar. The Raja of.
Sirmur (Nahan). The Raja of.
Sitamar. The Raja of.
Suket. The Raja of.
Tehri (Garhwal). The Raja of.

Salutes of 9 guns

Ali Rajpur. The Raja of.
Bansinor (or Vadashnor). The Nawab (Babi) of.
Bansda. The Raja of.
Baraundha. The Raja of.
Bariya. The Raja of.
Barwari. The Raja of.
Chhota Udepur (or Mahun). The Raja of.
Pharwarpur. The Raja of.
Dhrol. The Thakur Sahib of.
Fadhill (Shukra). The Sultan of.
Hispan (or Thibaw). The Sawbwa of.
Karond (Kalabandi). The Raja of.
Kongtung (or Kyainton). The Sawbwa of.
Khuchipur. The Raja of.
Kishn and Socotra. The Sultan of.
Lahaj (or Al Haura). The Sultan of.
Limri. The Thakur Sahib of.
Lunawara (or Lunavada). The Raja of.
Malhar. The Raja of.
Malor Kotia. The Nawab of.
Mong Nai. The Sawbwa of.
Nagori. The Raja of.
Pallikana. The Thakur Sahib of.
Rajkot. The Thakur Sahib of.
Sachin. The Nawab of.
Savanvadi. The Bar Desai of.
Shehr and Mokalla. The Sultan of.
Sunth. The Raja of.
Wankar (or Wankaner). The Raja Sahib of.
Wadhwan (or Vadwan). The Thakur Sahib of.
Wanghwa (or Nwanggye). The Sawbwa of.

Personal Salutes

Salutes of 21 guns

Gwallar. Honorary Major General His Highness Maharaja Sir Madho Rao Sindha Bahadur G.C.S.I. G.C.V.O. ADC LL.D. Maharaja of.
Jaipur. Honorary Major General His Highness Maharajadhiraja Sir Sawal Madho Singh Bahadur G.C.S.I. G.C.V.O. LL.D. Maharaja of.
Kolhapur. His Highness Sir Shahu Chhatrapati Maharaj G.C.S.I. G.C.V.O. LL.D. Maharaja of.
Mewar (Udaipur). His Highness Maharaja Dhiraj Maharana Sir Fateh Singh Bahadur G.C.S.I. G.C.V.O. Maharana of.
Travancore. His Highness Sri Maharaja Raja Sir Rama Varma Bahadur G.C.S.I. Maharaja of.

Salutes of 19 guns

Cochin. His Highness Raja Sri Rama Varma G.C.S.I. G.C.V.O. Raja of.
Mysore. Her Highness Maharani Kempa Nanjamma Avaru Vanivilas, C.I. of.
Nepal. Honorary Major General His Excellency Maharaja Sir Chandra Shumshere Jung Bahadur Rana G.C.B. G.C.S.I. G.C.V.O. Prime Minister Narbhai of.

<i>Salutes of 17 guns</i>		Indore The Maharaja (Holkar) of
Jodhpur Honorary Major General His Highness Maharaja Bahadur Sir Pratap Singh, G.C.S.I., G.C.V.O., K.C.B., A.D.C., Regent of Orchha, His Highness Maharaja Mahendra Sahai Sir Pratap Singh Bahadur G.C.S.I. G.C.I.E., Maharaja of.		Jammu and Kashmir The Maharaja of.
<i>Salutes of 13 guns</i>		<i>Salutes of 5 guns</i>
Palanpur His Highness Nawab Sir Sher Muhammad Khan Zorawar Khan G.C.I.E. Diwan of.		The Sheikh of Kuwait
<i>Salutes of 11 guns</i>		The Sheikh of Bahrain.
Barwan His Highness Rana Ranjit Singh of Bhor His Highness Shankar Rav Chinnaji Pant Sachiv of		The Sheikh of Abu Dhabi
Lahej (or Al Hanta) His Highness Sir Ahmad Fadhl K.C.S.I. Sultan of.		<i>Salutes of 3 guns</i>
Meer Kotla, His Highness Ahmad Ali Khan Bahadur, Nawab of.		The Sheikh of Debal.
Shehr and Mokalla His Highness Sultan Ghulab- bin Awadth Ali Kayti Sultan of		The Sheikh of Sharjah
<i>Salutes of 9 guns</i>		The Sheikh of Ajman
Kanker Maharajadhiraja Komal Dev of Lea Bela Mir Kamal Khan Jam of Loharu, Nawab Sir Amir-ud-din Ahmad Khan Bahadur G.C.I.E. of		The Sheikh of Um al Kawain.
Mudhol, Meherban Malojirao Vyankatrao Raje Ghorpade alias Nana Sahrb of Dthala Amir Nasr Shah of		The Sheikh of Ras-al Khelma.
Local Salutes		Local Personal Salutes
<i>Salutes of 21 guns</i>		These are fired on the termination of an official visit.
Bhopal The Begam (or Nawab) of Gwalior The Maharaja (Gindhia) of.		<i>Salute of 13 guns</i>
		His Excellency the Govr of Bushiro.
		<i>Salutes of 12 guns</i>
		The Sheikh of Mohammerah
		The Sheikh of Kuwait
		<i>Salute of 11 guns</i>
		The Sheikh of Bahrain
		<i>Salutes of 5 guns</i>
		Eldest son of the Sheikh of Mohammerah
		Eldest son of the Sheikh of Kuwait
		<i>Salutes of 5 guns</i>
		The Govr of Mohammerah.
		The Govr of Bander Abbas
		The Govr of Lingah
		<i>Salute of 3 guns</i>
		Eldest son of the Sheikh of Bahrain

SALARIES OF CHIEF OFFICERS

The following are the tables of salaries sanctioned for the Chief Officers of the Administration of India. The tables are liable to variation and it should be noted that the pay of members of the Indian Civil Service is subject to a deduction of 4 per cent for subscription towards annuity

	Pay per Annum
	Rs
Viceroy and Governor General	2 60 800
Private Secretary to Viceroy	24 000
Military Secretary and Aide-de-Camp to Viceroy	18 000
Surgeon to Viceroy	14 400
Commander-in-Chief of the Forces in India	1 00 000
Military Secretary to Commander in Chief in India	18 000
Members (6) of the Governor General's Council	80 000
President Railway Board	80 000 or 72,000
2 Members, Railway Board	48 000
Secretaries to the Government of India in the Army and Public Works and Legislative Departments	42 000
Secretaries to the Government of India in the Finance, Foreign, Home, Revenue and Agriculture, and Commerce and Industry Departments	48 000
Secretary to the Government of India in the Education Department	30 000
Joint Secretary	54 000
Controller and Auditor-General	42,000
Controller of Currency	28,000
2 Accountants-General, Class I	30 000
3 Accountants-General, Class II	27 000
4 Accountants-General, Class III	30 000
1 Commissioner of Northern India Salt Revenue	42,000 to 48,000
1 Director-General of Posts and Telegraphs	27 000 to 30 000
1 Postmasters-General	21 000 to 24 000
1 Director Geological Survey of India	24 000
Deputy Secretaries to the Government of India in the Finance and Foreign Departments	27 000
Deputy Secretaries to the Government of India in the Legislative and Home Departments	24,000
Superintendent of Port Blair	30 000 to 36,000

	Pay per Annum.
Ra.	
1 Chief Commissioner of Delhi	38 000
1 Director, Criminal Intelligence	36 000
2 Deputy Director Criminal Intelligence	18 000 to 24,000
Inspector-General of Forests	31,800
Surveyor-General Survey of India	36 000
1 Chief Inspector of Mines in India	22,500
1 Director-General Indian Medical Service	36 000
1 Sanitary Commissioner with the Government of India	24 000 to 30 000
1 Director-General of Archaeology in India	20 400
1 Administrator-General of Bengal	24 000
1 Director-General of Commercial Intelligence	24,000
1 Indian Observatories	18 000 to 24 000
Controller of Stationery and Printing	18 000 to 27 000
Governors of Madras, Bombay and Bengal	1,30 000
Private Secretaries to Governors of Madras Bombay and Bengal	18 000
Burgons to Governors of Madras, Bombay and Bengal	12 000
Military Secretary and Aide-de-Camp to Governors of Madras, Bombay and Bengal	12,000
Bishop of Calcutta	30 978
Bishop of Madras	25 600
Bishop of Bombay	25 600
Chief Justice of Bengal	72 000
Chief Justices of Madras Bombay and the North Western Provinces	60 000
Full-time Judges of the High Courts of Calcutta (15) Madras (6) Bombay (5) and the North Western Provinces (6)	48 000
Chief Judge of the Chief Court Punjab	48 000
Burma	48 000
Judges of the Chief Court, Punjab (4) and Burma (4) except Chief Judges	42 000
3 Political Residents 1st class	48 000
9 " 2nd class	33 000
Political Officers on this scale	5 400 to 28 800

Provincial Salaries

A & B—Acting and other allowances are not included in the salaries shown

Bengal

4 Members of Council	64 000
1 Member of the Board of Revenue	43 000
5 Commissioners of Divisions	35 000
1 Chief Secretary to Government	40 000
3 Secretaries to Government	33 000
2 Under Secretaries to Government	12,000
1 Excise Commissioner	21 600
1 Chairman of Corporation of Calcutta	42,000
1 Deputy ditto	12,000 to 18 000
1 Collector of Customs Calcutta	30 000
12 Magistrates and Collectors 1st grade	27 000
18 " 2nd	21 600
14 " 3rd	18 000
17 Joint Magistrates and Deputy Collectors, 1st grade	10 800
17 " 2nd	8 400
Assistant Magistrates and Collectors	4 900 to 8 000
3 District and Sessions Judges, 1st grade	36 000
18 " 2nd	30 000
18 " 3rd	24 000
1 Chief Judge, Presidency Courts of Small Causes	21 600
4 Judges " "	12,000, 12 500, 15 800 and 16,800
1 Advocate General	48 000
1 Solicitor to Government	40 000
1 Registrar High Court	20 400
1 Inspector-General of Police	30 000 to 38 000
1 Director of Public Instruction	24,000 to 30,000
1 Private Secretary to H. Y. The Governor	18,000
1 Director of Agriculture	31,800
1 Director of Land Record	18 000
1 Secretary of the Board of Revenue	18,000

Bihar and Orissa

1 Lieutenant Governor	1 00 000
2 Members of the Executive Council	60,000
3 Members of the Board of Revenue	42,000

Salaries of Chief Officers

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Pay per
Annum.
Rs.

Bihar and Orissa—contd

1	Chief Secretary to Government	30 000
2	Secretaries to Government	27 000
8	Under Secretaries to Government	12 000
15	Commissioners	35 000
9	Magistrates and Collectors, 1st grade	27 000
0	2nd	21 800
1	3rd	19 000
1	Joint Magistrates and Deputy Collectors 1st grade	10 800
0	2nd	8 400
-	Assistant Magistrates and Collectors	4 800 to 6 000
2	District and Sessions Judges 1st grade	38 000
5	2nd	30 000
0	3rd	24 000
1	Commissioner of Excise and Salt	17 280
1	Director of Land Records and Surveys	21 600
1	Director of Agriculture	21 600
1	Inspector-General of Police	30 000 to 36 000
1	Director of Public Instruction	24 000

Assam

1	Chief Commissioner	60 000
2	Commissioners	33 000
2	Secretaries to Chief Commissioner	14 000 and 21 600
6	Deputy Commissioners 1st grade	21 600
7	2nd	18 000
-	3rd	10 800
4	Assistant 1st	8 400
-	2nd	5 400 — 6 000
-	3rd	12 000
2	Under Secretaries to Chief Commissioner	30 000
1	District and Sessions Judge	27 000
1	Inspector-General of Police	1,000 to 18 000
1	Director of Public Instruction	18 000
1	Director of Land Records and Agriculture	18 000
1	Excise Commissioner	16 000

United Provinces of Agra and Oudh.

1	Lieutenant Governor	1 00 000
1	Chief Secretary to Government	36 000
2	Members of the Board of Revenue	42 000
2	Secretaries to Government	20 000 and 22 000
1	Secretary to Board of Revenue	22 000
3	Under Secretaries to Government	12 000
9	Commissioners of Divisions	85 000
1	Commissioner for Kumaon	30 000
1	Opium Agent	30 000 to 36 000
19	Magistrates and Collectors, 1st grade	27 000
17	2nd	22 000
4	Deputy Commissioners 1st grade	22 000
10	2nd	20 000
15	Joint Magistrates 1st grade	12 000
8	Assistant Commissioners 1st grade	9 600
21	Joint Magistrates and Assistant Commissioners 2nd grade	8 400
-	Assistant	4 800 to 6 000
3	Deputy Commissioners for Kumaon	12 000 12 000 and 18 000
1	City Magistrate Lucknow	12 000
1	Superintendent Dehra Dun	18 000
1	Judicial Commissioner	42 000
2	Additional Judicial Commissioners	40 000
2	District and Sessions Judges 1st grade	36 000
7	2nd	30 000
7	3rd	27 000
10	4th	22 000
3	5th	20 000
1	Registrar High Court	12 200
1	Inspector-General of Police	30 000 to 36 000
1	Director of Public Instruction	24 000

Punjab.

1	Lieutenant Governor	1 00 000
1	Chief Secretary to Government	37 000
3	Secretaries to Government	18 000 and 23 600

Punjab— <i>ctd</i>		Pay per Annum. Rs.
2	Under Secretaries to Government	12,000
1	Under Secretary, Police Department, and Inspector-General of Police	30,000
1	Under Secretary, Educational Department	24,000
2	Financial Commissioners	42,000
2	Secretaries to Financial Commissioner	10,800 and 8,400
5	Commissioners	33,000
14	Deputy Commissioners 1st grade	27,000
14	" 2nd	21,600
14	" 3rd	18,000
14	Assistant Commissioners, 1st grade	10,800
14	" 2nd	8,400
53	" 3rd	6,000
2	Divisional Judges 1st grade	33,000
4	" 2nd	30,000
6	" 3rd	27,000
10	" 4th	21,600
10	District Judges	18,000
1	Sub-Judge and Judge, Small Cause Court, Simla	15,000
1	Registrar of the Chief Court	15,000
1	Legal Remembrancer	24,000
1	Inspector-General of Police	24,000
1	Director of Public Instruction	24,000
Burma		
1	Militant Governor	1,00,000
1	Chief Secretary to Government	36,000
2	Secretaries	21,600
2	Under Secretaries	8,000
1	Assistant Secretary	6,000
1	Financial Commissioner	42,000
1	Settlement Commissioner and Director of Land Records	33,000
1	Deputy Director of Land Records	19,200
1	Secretary to Financial Commissioner	12,000
1	Director of Agriculture	18,000
8	Commissioners of Divisions	22,000
12	Deputy Commissioners 1st grade	27,000
13	" 2nd	21,600
15	" 3rd	18,000
12	Assistant 1st	12,000
13	" 2nd	8,400
10	" 3rd	7,200
53	" 4th	6,000
1	Judicial Commissioner	42,000
8	Divisional Judges 1st grade	33,000
1	" 2nd	30,000
2	" 3rd	27,000
2	" 4th	21,600
8	District	18,000
1	Registrar, Chief Court, Lower Burma	14,400
1	Government Advocate	18,000 to 21,600
Central Provinces		
1	Chief Commissioner	62,000
1	Financial Commissioner	42,000
5	Commissioners of Divisions	33,000
10	Deputy Commissioners 1st class	27,000
11	" 2nd	21,600
13	" 3rd	18,000
10	Assistant 1st	10,800
10	" 2nd	8,400
-	" 3rd	6,000
1	Judicial Commissioner	42,000
2	Additional Judicial Commissioners	36,000 and 33,000
4	Divisional and Sessions Judges	14,800 to 18,240
2	District and Sessions Judges	14,000 and 20,400
1	Inspector-General of Police	27,000 to 33,000
1	Director of Public Instruction	18,000 to 24,000
Berar		
1	Commissioner	33,000
2	District and Sessions Judges	22,000 and 20,000

Salaries of Chief Officers

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		Pay per Annum
Berar—contd		
3 Deputy Commissioners	1st class	22 000
2	2nd	20 000
2	3rd	18 000
2 Assistant	1st	10 500
3	2nd	8 400

Madras

3 Members of Council		64 000
1 First Member Board of Revenue		45 000
1 Second Member		42 000
1 Third Member		38 000
1 Fourth Member		36 000
1 Chief Secretary to Government		45 000
1 Revenue Secretary to Government		45 000
1 Secretary to Government		30 000
1 Private Secretary to Governor		18 000
2 Under Secretaries to Government		12 000
1 Secretary to Commissioners of Land Revenues		18 000 to 21 000
1 Secretary to the Commissioners of Salt &c		18 000 to 21 000
22 District and Sessions Judges		24 000 to 36 000
1 Registrar High Court		18 000 to 21 000
1 Advocate General		21 000
1 Government Solicitor		18 200
1 Chief Judge, Small Cause Court		24 000
1 Resident in Travancore and Cochin		33 000
1 Inspector General of Police		30 000 to 38 000
10 Collectors, 1st grade		30 000
14 " 2nd		27 000
1 President Corporation of Madras		25 800
6 Collectors, 3rd grade		21 000
17 Sub Collectors and Joint Magistrates	1st grade	14 400
16 " 2nd		10 800
16 " 3rd		8 400
1 Assistant Collectors and Magistrates		4 800 to 6 000
1 Director of Public Instruction		24 000 to 30 000

Bombay

3 Members of Council		64 000
1 Chief Secretary to Government		45 000
1 Secretary to Government		37 500
1 " "		30 000
1 Private Secretary to Governor		18 000
2 Under Secretaries to Government		15 000
1 Inspector General of Prisons		21 000 to 24 000
1 Inspector General of Police		30 000 to 36 000
4 Commissioners of Divisions		36 000 and 42 000
1 Commissioner in Sind		45 000
1 Municipal Commissioner Bombay		36 000
18 Senior Collectors		27 000
15 Junior		21 000
10 Assistant Collectors	1st grade	18 400
17 " 2nd		10 800
18 " 3rd		8 400
1 " 4th		4 500 to 6 000
1 Collector in Sind		21 000
1 Assistant Commissioner in Sind		18 200
1 Judicial Commissioner in Sind		36 000
1 Additional Judicial Commissioner in Sind		33 000
2 District and Sessions Judges—1st grade		30 000
6 " 2nd		27 000
10 " 3rd		21 000
1 Prothonotary and Registrar High Court		20 400 to 24 000
1 Administrator General and Official Trustee		24 000 to 30 000
1 Registrar High Court		20 400
1 Chief Judge Small Cause Court		24 000
1 Remembrancer of Legal Affairs		30 000
1 Government Solicitor		30 000
1 Advocate General		24 000
1 Agent to the Governor in Kathiawar		36 000
1 Resident and Senior Political Agent		27 000
28 Political Officers on time scale of pay	5 400 to 10 200 & 11 400 to	23 400
1 Director of Public Instruction		24 000 to 30 000

Indian Orders

The Star of India.

The Order of the Star of India was instituted by Queen Victoria in 1861, and enlarged in 1866, 1876, 1897, 1902 and 1911, and the dignity of Knight Grand Commander may be conferred on Princes or Chiefs of India, or upon British subjects for important and loyal service rendered to the Indian Empire. The second and third classes for services in the Indian Empire of not less than thirty years in the department of the Secretary of State for India. It consists of the Sovereign, a Grand Master (the Viceroy of India) the first class of forty four Knights Grand Commanders (22 British and 22 Indian) the second class of one hundred Knights Commanders and the third class of two hundred Companions exclusive of Extra and Honorary Members as well as certain additional Knights and Companions.

The Insignia are (i) the Collar of gold composed of the *lotus of India*, of palm branches tied together in satire of the united red and white rose and in the centre an Imperial Crown, all enamelled in their proper colours and linked together by gold chains. (ii) The Star of a Knight Grand Commander is composed of rays of gold issuing from a centre having thereon a star of five points in diamonds resting upon a light blue enamelled circular ribband tied at the ends and inscribed with the motto of the Order *Deo et Rege* our *Guide* also in diamonds. That of a Knight Commander is somewhat different, and is described below. (iii) The Badge, an oval cameo having Her Majesty Queen Victoria's Royal Effigy thereon set in a perforated and ornamental oval containing the motto of the Order surrounded by a star of five points, all in diamonds. (iv) The Mantle of light blue satin lined with white and fastened with a sash of white silk with blue and silver tassels. On the left side a representation of the Star of the Order.

The ribbon of the Order (four inches wide for Knights Grand Commanders) is sky blue having a narrow white stripe towards either edge, and is worn from the right shoulder to the left side. A Knight Commander wears (a) around his neck a ribbon two inches in width, of the same colours and pattern as a Knight Grand Commander and pendant therefrom a badge of a smaller size, (b) on his left breast a star composed of rays of silver issuing from a gold centre, having thereon a silver star of five points resting upon a light blue enamelled circular ribband tied at the ends, inscribed with the motto of the Order in diamonds. A Companion wears from his left breast a badge of the same form as appointed for a Knight Commander but of a smaller size pendant to a like ribbon of the breadth of one and a half inches. All Insignia are returnable at death to the Central Chancery or if the recipient was resident in India, to the Secretary of the Order at Calcutta.

Sovereign of the Order—H. I. M. The King.

Grand Master of the Order—The Viceroy for the time being Baron Hardinge of Peshawar.

Honorary Knights Grand Commanders

(G. C. S. I.)

The Emperor of Persia
Prince Louis d'Arberg

Extra Knights Grand Commanders (G. C. S. I.)

H. M. the Queen
H. R. H. the Duke of Connaught

Knights Grand Commanders (G. C. S. I.)

H. H. the Gackwar of Baroda
H. H. the Maharana of Udaipur
H. H. the Maharajah of Jaipur
H. H. the Maharaja of Travancore
The Marquis of Lansdowne
Baron Leav
H. H. the Maharaja of Jammu and Kashmir
The Earl of Glign
H. H. the Maharaja of Kohlapur
H. H. the Maharaja of Gwalior
Lord Battris
H. H. the Maharaja of Rewa
Baron Macdonnell
H. H. the Maharaja of Ilhar
Earl Curzon of Kedleston
Baron Sandhurst
Lord Cromer Hamilton
H. H. the Raja of Cochin
Baron Ampthill
Maharaja Sir Chuan Ira Shamsher Jung of Nepal
H. H. the Maharaja of Orissa
H. H. the Maharaja of Mysore
Field Marshal Viscount Kitchener
H. H. the Begum of Bhopal
Sir Stuart Bayly
Sir Dennis Fitz Patrick
Sir Digston Probyn
Baron Sydenham
Sir Arthur Lawley
Sir John Hewitt
H. H. the Maharaja of Bikaner
H. H. Maharaja of Kotah
General Sir O. Moore Creagh
H. H. the Raja of Kapurthala
H. H. the Nizam of Hyderabad
H. H. the Aga Khan
H. H. the Nawab of Tonk

Knights Commanders (K. C. S. I.)

The Earl of Cromer
Sir Joseph West Ridgeway
Sir Theodore Craut Hope
Sir William Cluete Pownen
Sir James Broadwood Vall
Sir Charles Hauke Lord Crosthwaite
Sir David Miller Barbour
Sir Andrew Richard Scott
Sir Philip Farnval Butchers
Sir Henry Edward Stokes
Sir Henry Mortimer Durand
Major Gen. Sir Oliver Richardson Newmarch
Sir Frederick William Richards Fryer
H. H. Maharao of Sirohi
Sir Courtenay Peggine Uberr
Lieut. Col. Sir George Scott Robertson
Sir William Luskyn Ward
Brig. Surg. Lieut. Col. Sir Alfred Swaine
Lothbridge
H. H. Maharao of Bundi
Sir Edward Charles Buck
Sir William Mackworth Young
Sir Charles James Lyall
Sir Robert Joseph Crosthwaite
Sir William John Cunningham

Sir Richard Udny
Colonel Sir Howard Mella
Sir Arthur Charles Trevor
Sir John Frederick Price
Sir Charles Montgomery Rivaz
Sir James Digges La Touche
Lieut. Col. Sir David William Keith Baird
Sir Henry John Stedman Cotton
Sir Henry Martin Winterbotham
Sir James Montezath
Lieut. Col. Sir Donald Robertson
Sir Andrew Henderson Leith Fraser
Sir Hugh Shakespear Barnes
Sir William Roe Hooper
Col. Sir Colin Campbell Scott Moncrieff
Kunwar Sir Ranbir Singh of Patiala
Sir Arundel Tagg Arundel
Sir Thomas Raleigh
H. H. Thakur Sahib of Bhavnagar
Sir Arthur Henry Temple Martindale
Sir James Thomson
Sir Joseph Bampfylde Fuller
H. H. Raja of Chamba
Lieut. Col. Arthur John Baron Stamfordham
Sir Thomas William Holderness
Sir Laurence Hare
Sir Charles Stuart Bayley
H. H. Raj Rana of Jhalawar
Raja Sir Tasadduk Rasul Khan of Bahangrabad
Oudh
Sir John William Pitt Muir Mackenzie
Nawab Bahadur Sir Khwaja Salimulla of Dacca
Sir James Wilson
H. H. Maharaja of Alwar
H. H. Raja of Jind
Sir Henry Etie Blizard
Sir Gabriel Stokes
Sir George Stuart Forbes
H. H. Raja of Ratlam
James Lyle Baron Incheape
Sir Harvey Adamson
Gen. Sir Beauchamp Duff
Nawab of Mursidabad
Lieut. Col. Sir James Robert Dunlop Smith
Sir John Ontario Miller
Sir Lionel Montague Jacob
Sir Murray Hammack
Sir Krishna Gobinda Gupta
Sir Leslie Alexander Selim Porter
Sir Spencer Harcourt Butler
Sir Robert Warrand Carlyle
H. H. Maharaja of Kishanganj
Sir Reginald Henry Craddock
Sir James McOrone Donle
Sir James George Weston
Sir Benjamin Robertson
Sir Richard Amphlett Lamb
Maharajadhiraja of Burdwan
Sir Elliot Graham Colvin
Sir Trevellyn Rashleigh Wynne
Surz. Gen. Sir Charles Parley Lukis
Sir George Casson Walker
H. H. Raja of Dhar
H. H. Raja of Dewas State (Senior Branch)
Surz. Gen. Sir Francis Wollaston Trevor
H. H. Maharaja of Bikaner
Sir John Nathaniel Atkinson
Sir William Thomson Moulson
Sir George Head Barclay
Lieut. Gen. Sir James Wilcocks
Lieut. Col. Sir G. Ross-Koppel
Sir M. F. O. Dwyer
Sir Sady d'Alimam

Sir D. O. Balthie
Sir Michael William Denton
Sir Harold Arthur Stuart
Colonel Sir Sidney Gerald Burrard
Sir William Henry Solomon
Major Gen. Sir W. R. Burdwood

Companions (C S L)

Lieut. Col. William Dickinson
Gen. Sir Peter Stark Lumsden
Major-Gen. Beresford Lovett
Major-Gen. Phillip Durham Henderson
Col. Leopold John Herbert Grev
Sir George Christopher Moworth Birdwood
Major Gen. Henry Wyl
Sir Henry William Fritzsche
Herbert John Reynolds
Lieut. Gen. Michael Weeks Willoughby
Raja. Fari Mohan Mukharji of Uttarpara
Sir Frederick Russell Hogg
Col. Charles Edward Yates
William Rudolph Henry Mork
Rao Chhatrapati Bahadur Jagirdar of Allpura
Col. John Clerk
James Richard Taylor
David Robert Lyall
Sardar Jivan Singh of Shahzadpur
Col. George Herbert Trevor
Col. Frederick J. Home
Lieut. Col. Henry St. Patrick Maxwell
Sir Jervoise Athelstan Daines
Sir Thomas Walter Lane
Alan Cadell
Arthur Fortes
Sir Arthur Upton Fanshawe
Col. George Fletcher Otley Boughcy
James Fairbairn Finlay
Joseph Parker
Charles Walter Bolton
Horace Frederick D'Oyly Monte
Surz. Gen. James Cleghorn
Col. Thomas Aloysius Miles
Col. James Aloysius Smith
Henry Aiken Anderson
Lieut. Col. Sir Arthur Henry McMahon
Sir Henry Evan Murelson James
James Knox Spencer
Charles William Odling
Alexander Walmsley Crutskshank
David Norton
Thomas Stoker
Col. Maule Campbell Brackenbury
Sir Edward Richard Henry
Lucas White King
Sir Mackenzie Dalzell Chalmers
Surz. Gen. David Stuchart
Henry Farrington Evans
Lt. Col. John Muir Hunter
Richard Gilles Hardy
Sir Frederick Robert Upcott
Herbert Charles Fanshawe
Sir Frederick Styles Philipin Jely
George Robert Irwin
Lieut. Gen. Sir George Lloyd Reilly Richardson
Robert Burton Buckley
Arthur Frederick Cox
Charles Gerwen Bayne
Harley Kennedy
Sir Edwin Grant Burs
Major-Gen. Trevor Bruce Tyler
William Charles Macpherson
Lt. Col. James Alexander Lawrence Montgomery
Lt. Gen. Henry Doynton Hutchinson

Lieut.-Col. Sir Hugh Daly	George Moss Harriott
Raja of Burdwan	Ernest Herbert Cooper Wajah
Nawab of Bahau	Edward Vere Lovings
Sardar Baden Singh of Malaudh	Robert Nathan
Sir Thomas Gordon Walker	Arthur Meredith
Col. James White Thurburn	Lieut.-Col. Charles Archer
Alfred Brereton	James Peter Orr
William Thomas Hall	Herbert Alexander Canon
Richard Townsend Greer	William Axel Hertz
Col. Robert Henry Jennings	Mahadev Bhaaskar Chaudhul
Sir Louis William Dene	George Seymour Curtis
Sir Alfred Macdonald Bulteel Irwin	William Henry Clark
Lt.-Col. James Blyd Hutchinson	Lieut. Colonel Francis Aylmer Maxwell
Raja Ram Pal of Kotlehr	Major Olive Wigram
Hermann Michael Kisch	Herbert Thompson
Sir Cecil Michael Willford Brett	Rao Bahadur Nanak Chand
Herbert Bradley	Surgeon General William Burney Bannerman
Sir Frank Campbell Gates	Lieut. Col. John Ramsay
John Mitchell Hobbs	Stuart Lockwood Maddox
Percy Seymour Young Fitzgerald	Gilbert Thomas Walker
Lt.-Col. Willoughby Pittsalm Kennedy	Lieut. Col. Philip Richard Thornhagh Gordon
Raja Narendra Chand	Khan Zulfikar Ali Khan of Malerkotla
Arthur Delaval Younghusband	Col. George Francis Angelo Harris
Oscar Theodore Barrow	Edmund Vivian Gabriel
Col. Howard Guad	John Stuart Donald
Francis Alexander Slacke	Henry Montague Segundo Mathews
Salyid Husain Bilgrami	Arthur Crommello Banks
Percy Cowyn Lyon	Kandouji Jamshedji
Algernon Robert Sutherland	Maulvi Ahmad Hussam
Sir George Watson Shaw	Morace Charles Miles
William Arbuthnot Inglis	H. H. Raja Bye Chand Chief of Kahlur
Romer Edward Younghusband	Lieut. Col. Arthur Russell Albridge
Col. Herbert Mullaly	Lieut.-Col. Matthew Richard Henry Wilson
John Alexander Brown	John Charles Buchanan
Col. Henry Phauls	Col. Thomas Francis Bruce Runy Talbot
Maharaj Bhairon Singh	Michael Kennedy
Maj.-Gen. Sir Alfred William Lambert Bevil	Thakor Karunshinghi Vajrajji
Maurice Walter Fox Strangways	Meherban Mudhoji Jaurao Nalk Nana Nim
William Lochiel Raptis Lovett Cameron	ballar
Sir Edward Douglas Macleagan	Lieut.-Col. Alain Chartier de Lotbiniere Joly de
Raja Madho Lal	Lotbiniere
John Strathodier Campbell	Brig. Gen. Herbert Vaughan Cox
Lieut.-Col. Charles Herbert	Brig. Col. Robert Smirton Maclean
Sir Ashutosh Mukharji	Lieut. Col. Charles Mowbray Dallas
Maj.-Gen. Sir Henry Montague Pukinnton	Edward Henry Scamand Clarke
Hawkes	Jagadish Chandra Bose
Dr. Raah Ethard Ghosh	Arbus Ab Daig
Francis Capel Harrison	Oswald Campbell Lees
Lieut.-Col. Sir Percy Zuharlah Cox	Lt. Col. G. G. Giffard
Comdr. Sir Hamilton Pym Keer-Smith	F. W. Johnston
Andrew Edmond Castleduart Stuart	William Henry Lucas
Brig. Gen. William Middel Birdwood	A. L. Salanders
Norman Goodford Cholmely	Vakhatsinghi Kesdisinghi
Walter Francis Rice	Paul Gregory Mullus
Alexander Gordon Cardew	Lieut.-Col. Albert Edward Woods
Sir Frederick William Duke	William Exall Tempest Bennett
Haviland Le Mesurier	Hon. Maj. Sahibzada Obaidullah Khan
Claud Hamilton Archer Hill	William Ogilvie Home
Cecil Edward Francis Bunbury	Pazhmaneri Sundaram Aiyar Sivaswami Aiyar
Col. Reginald Henry Mahon	William Harrison Moreland, C.I.E.
Lieut.-Col. Alexander Fleetwood Pinhey	Edward Albert Galt, C.I.E.
Capt. Allen Thomas Hunt	Diwan Bahadur Chaudh. Raghunath Das of
Walter Badock	Kotah
James Mullison	Col. Lestock Hamilton Reid
Pradipac Rapti Sahib Ghatge	Brig.-Gen. Henry Wickham Stevenson
Robert Woodburn Gillan	Hon. Lieut. Col. Raja of Lambagan
John Walter Hoar	Isabel Davidson
Charles Ernest Vear Goument	George Carmichael
Harrington Verney Lovett	Lieut.-Col. Donald John Campbell MacNabb
Herbert Lovely Kates	Lieut.-Col. Henry Walter George Cole
George Gilbert White	Stuart Mitford Fraser
Frederick Beadon Bryant	Henry Venn Cobb
Lieut.-Col. Herbert Lionel Showers	Behari Lal Gupta
Frank George Sly	Henry Wheeler

F W Newmarch
Sardar Dhill Singh of Jullunder
Lt-Col Raj Kumar Bhr Bikram Singh
Walter Maude
Bertram S Carey
Michael Nathersole
Henry Ashbrooke Crump
William James Held
Mysore Hantharaj Urs
O V Bosanquet
Walter Gurnell Wood
John Cornwallis Godley

OFFICERS OF THE ORDER

Secretary Lieut Col Sir A H McMahon

Registrar Col Sir Douglas Dawson

The Most Eminent Order of the
Indian Empire

This Order instituted by H M Queen Victoria, Empress of India, Jan 1st 1878 and extended and enlarged in 1886 1887 1892 1897 and 1902 is conferred for services rendered to the Indian Empire, and consists of the Sovereign & Grand Master thirty two Knights Grand Commanders (of whom the Grand Master is first and principal) ninety two Knights Commanders and an indefinite number of Companions (not exceeding without special statute 20 promotions in any one year) also Extra and Honorary Members over and above the vacancies caused by promotion to a higher class of the Order as well as certain Additional Knights and Companions appointed by special statute Jan 1st 1909 commemorative of the 50th Anniversary of the assumption of Crown Govt in India

The Insignia are (i) The COLLAR of gold, formed of elephants lotus flowers peacock in their pride and Indian roses in the centre the Imperial Crown the whole linked together with chains (ii) The STAR of the Knight Grand Commander comprised of five rays of silver having a small ray of gold between each of them the whole alternately plain and scalloped issuing from a gold centre having thereon Her Majesty Queen Victoria's Royal Effigy within a purple circle edged and lettered gold inscribed *Imperatrix Auspiciis* and surrounded by an Imperial Crown gold, (iii) The BADGE consisting of a rose enamelled gules barbed vert and having in the centre Her Majesty Queen Victoria's Royal Effigy within a purple circle edged and lettered gold inscribed *Imperatrix Auspiciis* surrounded by an Imperial Crown also gold (iv) The MASTIC is of Imperial purple satin lined with and fastened by a cordon of white silk with purple silk and gold tassels attached On the left side a representation of the Star of the Order

A Knight Commander wears (a) around his neck a ribbon two inches in width of the same colour (purple) and pattern as a Knight Grand Commander pendant therefrom a badge of smaller size (b) on his left breast a star similar to that of the first class, but the rays of which are all of silver

The above mentioned insignia are returned at death to the Central Chancery or if the Knight was resident in India to the Secretary of the Order at Calcutta

A Companion wears from the left breast a badge (not returnable at death) of the same form as appointed for a Knight Commander but of smaller size pendant to a like ribbon of the breadth of one and a half inches.

Sovereign of the Order—The King
Emperor of India.

Grand Master of the Order—Lord
Hardinge.

Honorary Knights Grand Commanders
(G C I E.)

The ex-Emperor of Korea

Extra Knight Grand Commander
(G C I E.)

The Duke of Connaught

Knights Grand Commanders (G C I E.)

Lord Hony

The Rao of Cutch

Lord Lansdowne

Lord Harris

The Nawab of Tonk

Sir James Lyall

Lord Elgin

The Wall of Kalat

Lord Sandhurst

Maharaja of Karaul

Thakur Sahib of Gondal

Thakur Sahib of Norvi

Sir George Faudel Phillips

The Maharaja of Benares

Sir Sher Muhammad Khan of Palampur

Lord Curzon of Kedleston

The Maharaja of Jaipur

The Maharaja of Orissa

Lord Amhurst

Maharaja of Bundi

General Sir Alfred Gasehe

The Maha Rao of Sirohi

The Aga Khan

The Maharaja of Travancore

Lord Lannington

The Begum of Bhopal

Sir Edmund Ellis

The Nawab of Junjra

Sir Walter Laurence

Sir Arthur Lawley

The Maharaja of Bikaner

The Maha Rao of Kotah

Lord Sydenham

Lord Kitchener

The Nawab of Rampur

Maharaj Sir Kichen Parshad

Lord Carmichael

Maharaja of Kashmir

Sir Louis Dane

Maharaja of Bobbili

Lord Stamfordham

Sir Guy Fleetwood Wilson

Sir John Jordan

The Maharana of Udaipur

The Maharaja of Patiala

The Mir of Khairpur

The Raja of Cochin

The Nawab of Dacca

Lord Pentland

The Raja of Pudukottai

Lord Willington

Maharaja of Kohapur

Maharaja of Venkatagiri

The Maharaja of Mysore

Honorary Knights Commanders (K. C. I. E.)

Sir Leon E. Clement-Thomson
M. E. Sir Hussain Kull Khan Mokhered
Dowlet
Sir Sven Hedlin
The Sheikh of Mohamrah
Gen. Sir Albert Houtman Schindler
The Sheikh of Koweit
The Sultan of Shehr and Mokalla

Knights Commanders (K. C. I. E.)

Sir Alexander Meadows Rendel
Sir George Christopher Molesworth Birdwood
Surgeon-General Sir Benjamin Simpson
Sir Albert James Leppoe Cappel
Sir Donald Mackenzie Wallace
Sir Alfred Woodley Croft
Sir Bradford Leslie
Sir Arthur Nicolson
Sir Galdard Molesworth
Sir Frederick Russell Hogg
Raja of Venkatagiri
Sir Henry Mortimer Durand
Sir Arthur George Macpherson
Sir Henry Stuart Cunningham
Raja of Lunawara
Sir Roper Lethbridge
Sir Edward Charles Kayll Ollivant
Sir Henry Hoyle Howorth
Sir Henry Seymour King
Sir John Lambert
Baron Lochoway
Col. Sir Henry Ravenshaw Julliffier
Sir Wm. R. Brooke
Maharaja of Gidhar
Lieut.-Col. Sir Adelbert Cecil Talbot
Major-General Sir Thomas Denbury
H. E. Maharaja of Ajmer
Sir Henry William Blee
Nawab of Loharu
Col. Sir William Blisset
Sir John Jardine
Rear Admiral Sir John Hext
Sir Mancharles Blownaggreo
Col. Sir Thomas Koldich
Sir Arthur Wilson
Sir Andrew Wingate
Raja Sir Harnam Singh Ahluwalia
Sir S. Subramanyya Aiyar
Sir Alexander Cunningham
Sir Henry Evan Marchmont James
Nawab Sir Shahbaz Khan Bugti of Baluchistan
Sir James George Scott
Maharaja of Darbhanga
Col. Sir Samuel Swinton Jacob
Sir Lawrence Hugh Jenkins
Sir Herbert Threlkeld White
Surgeon-General Sir Benjamin Franklin
Sir Frederick Augustus Nicholson
Sir Arthur Upton Fanshawe
Raja Dhira of Shabpura
Sir Gangadhar Rao Ganesb Chief of Miraj
(senior branch)
Sardar Sir Ghaus Baksh, Raisani
Brevet-Col. Sir Buchanan Scott
Col. Sir John Walter Otley
H. E. Raja of Saliana

Lieut.-Col. Sir Francis Edward Youngshaband
Major-General Sir James E. L. Macdonald
Sir Sir Ugyen Wangchuk, Tongsa Penlop of
Bhutan
Sir Fredric Styles Philip Lely
Lt.-Col. Sir Arthur Henry McMahon
Gen. Sir Donald James Slim McLeod
Maharaja of Bahrampur
Sir Francis Whitmore Smith
Nawab of Pahasu
Rajgarh H. H. Raja Sir Banu Singh Bahadur
Sir Thomas Gordon Walker
Sir Arthur Naylor Wollaston
Sir Thomas Henry Holland
Nawab of Hyderabad
Lieut. Col. Sir George Olaf Ross Keppel
H. H. Maharajadhiraja of Kishangarh
Raja of Mahmudabad
Sir Trevorredyn Rashleigh Wynne
Surgeon-General Sir Gerald Bamford
Sir Richard Morris Dano
Maharajadhiraja of Burdwan
Raja of Poonch
Prince Ghulam Muhammad Ali Khan Bahadur
Sir William Stevenson Meyer
Sir Wilhelm Schlich
Sir Theodore Morlon
Major-General Sir Robert Irvin Seaton
Sir John David Reus
Rear Admiral Sir Edmund John Warre Slade
Sir John Bouton
Sir Frederick William Duke
Sir Archdale Laile
Sir Charles Stewart Wilson
Major-General Sir Malcolm Henry Stanley Grover
Sir Charles Maitt Cleveland
Lieut.-Colonel Sir Douglas Hag
Lieut.-Colonel Sir Hugh Lely
Sir Henry Parsall Burt
Sir James Rousemynne DuBoislay
Sir Rajendra Nath Mukherji
Lieut.-Colonel Sir Henry Beaufort, Thornhill
Sir Gangadhar Madho Chintawala
H. H. Nawab of Jaora State
H. H. Raja of Bitaman State
Major Bahub Sir Amarshahi Baneshahi (Tankaner)
Sir Ram Krishna Gopal Bhanderkar
Sir Michael Filose
Rear Admiral Sir Cohn Richard Keppel
Sir John Stanley
Sir Saint-Hill Eardley Wilmot
Col. Sir Percy Zechauk Cox
Sir Francis Edward Spring
Maharaja Sir Sir Vickrama Deo
Rana Sir Shrotra Singh (U.P.)
H. H. Maharaja of Alwar
H. H. Maharawal of Partabgarh
H. H. Raja of Rajpura
Diwan Bahadur Sir Seth Kasturchand Daga
H. H. Maharaja of Bijnawar State Bundelkhand
Gen. Sir Mowbray Thomson
Sir John Lunge
Sir George Abraham Grierison
Sir Marc Aurel Stein
Major-General Sir Francis Henry Rutherford
Drummond
H. H. Maharawal of Dungarpur
Nawab Sir Bahram Khan
Sir Henry Alexander Kirk
Sir Alfred Gibbs Bourne
Chief of Jamkhadi
Sir Frank Campbell Gates
Sir George Macartney

Sir Edward Douglas Macleagan
 Maj.-Gen. Sir George John Younghouseband
 Sir Brian Eglerton
 Maharaja of Dinajpur
 Sir Stephen George Hale

Ex-Officio Companions (C. I. E.)

The Earl of Cromer
 Sir Courtenay P. Albert
 Sir Theodore C. Hope

Honorary Companions (C. I. E.)

Laurent Marie Emile Beauchamp
 Jean Etienne Justin Schneider
 Hajj Mohammad Ali Bala ut Taji
 James Carruthers Eliza Ewing
 Sheikh Abdulla Bin Esa

Companions (C. I. E.)

Richard Kaye Puckle
 Lieut.-Gen. Sir Henry Moore
 Gen. William Gordon
 Thomas Mitchell Gibson
 George Smith
 Col. John H. Rivett Carnac
 Roscoe Bocquet
 Lieut.-Gen. James F. Tennant
 Pierre Francois Henri Nanquette
 Stephen Paget Walter Vyryan Luke
 Sir Charles James Lyall
 Charles Edward Pittman
 Richard Isaac Bruce
 Sir Stewart Colvin Bayley
 Lieut.-Col. Charles William Owen
 George Belton Mathew
 Hon. Col. John Robertson
 Sir Henry Christopher Manoe
 Henry George Keene
 Maj.-Gen. Thomas Ross Church
 Thakur Bhoju Singh
 John Faithfull Fleet
 Rev. William Miller
 Benjamin Lewis Rice
 Col. Robert Parry Elabet
 James Burgess
 Mortimer Sloper Howell
 Rai Bahadur Sarat Chandra Das
 Maj.-Gen. Viscount Downe
 Frederick Charles Kennedy
 Sir George Watt M.B.
 Lieut.-Gen. Augustus Le Mesurier
 Joseph Ralph Edward John Boyle
 Rai Mahla Funna Lalji
 Lieut.-Col. Frederick D. Balkus
 William Wordsworth
 Henry Montagu Matthews
 The Rt. Hon. Saliyd Amoor Ali
 William James Maitland
 Col. Charles Wemyss Muir
 Sir Frank Forbes Adam
 Frederick Thomas Granville Walton
 Major-Gen. Charles Smith Maclean
 Major-Gen. James Cavan Berkeley
 Charles Henry Tawney
 Henry Irwin
 Arthur H. Hildebrand
 Sir James L. Walker
 Surgn. Maj. John Findlay
 Rayner Childe Barker
 Lieut.-Col. Charles Henry Ellison Adamson
 Col. William Merriman R.E.
 Gen. William Percival Tomkins
 Berthold Ribbentrop
 Langton P. Walsh

Jeremiah G. Hornbill
 Edmund Neel
 Lieut. Col. Sir George L. Holford
 Maj. Gen. L. R. E. Tucker
 James Edward O'Connor
 Col. Thomas Holbein Handley
 Ernest Octavius Walker
 Sir John Prescott Hewett
 Manoharlal Kavasi Mursban Khan Bahadur
 Frederick C. Dawkes
 Lieut.-Col. Henry Percy Poingdestre Leigh
 Sir J. Bampfylde Fuller
 George Pringle Rowe
 Dilsan Ganpat Rai
 Sir William Turner Thelston Dyer
 William B. Oldham
 Major Gen. G. F. L. Marshall
 Edward Horan Mann
 Bertram E. Carey
 Lieut. Gen. Sir G. L. R. Richardson
 Paul Gregory Melhus
 Col. Ernest H. Fenn
 Lt. Col. Sir Richard Carnac Temple
 Edward G. S. George
 Robert W. D. H. Vincent
 Lt. Col. J. Manners Smith
 John Stuart Donald
 Col. Frank William Chatterton
 Sri Ram Bhikaji Jatar
 Kasulbhai Varamin
 Col. H. S. Jarrett
 Col. H. B. Sanderson
 Arthur C. Rankin
 Adam G. Fyler
 Charles F. Buckland
 Alexander B. Patterson
 Harry A. Acworth
 Col. C. A. Porteous
 Col. C. I. Lane
 Sir Sreyung W. Jodgulev
 Maulvi Abdul Jabbar Khan Bahadur
 Col. W. R. Yelding
 Henry J. Stauson
 Sir Patrick Flayfair
 Frederick John Johnstone
 Col. Samuel Haslett Browne
 Dr. Rash Behari Ghosh
 Frank Henry Cook
 Francis Erskine Dempster
 Lieut. Col. John Shakespear
 Lieut. Col. James John Macleod
 Capt. Norman Franks
 Sir William Barnshaw Cooper
 Maharaj Rajashri Sankara Subbalay
 Khan Bahadur Naorji Fistonji Yaki
 Col. Russell Richard Fulford
 Col. Algernon George Arnold Burand
 Gen. Sir Beauchamp Duff
 Col. Robert Alexander Wauchope
 Edwin Darlington
 J. Strachan
 Dr. Waldemar M. Harkins
 Dr. Augustus Frederick Rudolf Hoernle
 Rustamji Dhanubhai Mehta
 Charles Godolphin William Hastings
 Khan Bahadur Manoharlal Rustamji Dholi
 Col. John Charles F. Gordon
 Charles Stewart Crole
 Sir Benjamin Robertson
 Duncan James Macpherson
 John Campbell Arbuthnot
 Sir Robert Warrand Carlyle
 Henry Cecil Farard

Lieut.-Col. Edward Charles Bayley
 Rai Bahadur Lala Shoo Prasad
 Frederick William Johnstone
 Maj. Arthur Louis Bickford
 Edward Gelson Thoburn
 William Malcolm Hadley
 Col. Benjamin William Marlow
 Herbert Gerald Tomkins
 Henry Whitty Smith
 Major Francis Beville Pridoux
 Major Arthur Prescott Trevor
 Lieut.-Col. Ramsay Frederick Clayton Gordon
 Lieut.-Col. Charles MacTaggart
 Nawab Mirza Mahdi Husain
 Rai Kishan Shah Bahadur
 Hopetoun Gabriel Stokes
 Lieut.-Col. Leonard Rogers
 Nawab Muhammad Abdul Majid
 Ludovic Charles Porter
 Henry Sharp
 Arthur Vemis
 Mahamahopadya Hara Prasad Shastri
 Lt.-Col. Allen McConaghey
 Nawab Kasear Khan Chief of the Magast
 Tribe
 Rai Bahadur Diwan Jamil Rai
 Robert Charles Francis Volkers
 Henry Hubert Hayden
 Alexander Muirhead
 Alexander Emanuel English
 George Frederick Arnold
 Maung Myat Tun Aung
 George Cunningham Buchanan
 William Rucker Stokeman
 Edward Robert Kaye Blankinship
 George Sanky Hart
 Nawab Muhammad Salimullah Khan Bahadur
 Jagbir of Doulghat
 John Henry Kerr
 Col. George Henry Evans
 Lieut.-Col. Henry Burden
 Maharaja Raghunath Singh of Dhasuk
 George William Kuchler
 John Ghest Cumming
 Rev. John Anderson Graham
 Francis Hugh Stewart
 Louis James Kershaw
 William Taylor Cathcart
 Manekjee Byramjee Dadabhoy
 Hugh Murray
 Sawal Rao Raja Raghunath Rao Dinkar
 (Gwalior)
 Pandit Kalias Narayan Haksar
 Lieut. Col. Ernest Douglas Money
 Major Hugh Roderick Stookley
 Mokshagundam Visvesvaraya
 Lieut.-Col. Richard Godfrey Jones
 Jaghirdar Dostaj Um
 Major Armine Breerton Dew
 Diwan Bahadur Diwan Amar Nath (Kashmir)
 Lieut.-Col. James Reed Roberts
 Lieut.-Col. Lawrence Impney
 Col. Alexander William Macrae
 Arthur Ernest Lawson
 Aibion Rajkumar Banerji
 Major Frederick Penn Edwes
 Col. William Burgess Wright
 Cecil Arolfbald Smith
 Sardar Shamsher Singh, of the Jind State
 Bala Gurbaksh Singh Bedi
 Col. Gilbert Walter Paine
 Lieut.-Col. Robert Edward Pemberton Pigott
 Lieut.-Col. William Daniel Henry

Gerald Francis Kentings
 Major John Glenzie Greig
 Sardar Naoorji Pudarji
 Vala Lakeman Meram Chief of Thana-Davil
 Claude Alexander Barron
 Leonard William Reynolds
 Lt. Col. Percy Molesworth Sykes
 Charles Arolfbald Walker Rose
 Major Arthur Denny GIBERT Bannay
 Major Rudolph K. T. Hogg
 Capt. John Mackenzie
 Pierce Langrishe Moore
 Alfred Chatterton
 Major Arthur Abercromby Duff
 Lt. Col. John Lawrence William French Mullen
 Bernard Coventry
 Albert John Harrison
 Richard Hamilton Campbell
 Rao Bahadur Bangalore Perumal Annaswami
 Mudaliar
 Sidney Kinner Levett-Years
 Frederick George Wigley
 Prafulla Chandra Ray
 Col. Francis Raymond
 Col. Michael Joseph Tighe
 Lieut.-Col. William Bernard James
 Major Sydney D. Agullar Crookshank
 Edward Denton Ross
 John Hugh Cox
 Khan Bahadur Muhammad Israr Hason Khan
 Major Reginald O. Bryan Taylor
 David Wann Alkman
 Rai Bahadur Pandit Hari Kishan Kaul
 Lieut. Col. Frederick William Wodehouse
 Col. Richard Henry Ewart
 Col. Matiland Cowper
 Thomas Walker Arnold
 Lieut. Col. Charles Henry James
 Bana Hira Singh of Dhamu
 Alexander Blake Shakespear
 John Hope Simpson
 Major Hugh Stewart
 Major William Glen Liston
 Lieut. Col. Edwin Henry de Vere Atkinson
 Walter Stanley Talbot
 Frank Adrian Lodge
 Col. Robert William Layard Dunlop
 Lieut.-Col. Walter James Buchanan
 Hishbi Kesh Laha
 Vallni Bhushan Gupta
 Joseph Terence Owen Bernard
 Lieut.-Col. Townley Richard Fligate
 Alexander Macdonald Bouse
 Charles Cahill Sheridan
 Capt. Herbert de Lisle Pollard Lowisley
 Major William Wilfrid Bickford
 Lieut.-Col. John George Knowles
 Henry Cruthbert Streetfield
 Major Cecil Kaye
 William Foster
 Sardar Appaji Rao Ankar
 W. H. Arden Wood
 Sardar Arur Singh
 W. C. Ashmore
 Major Blackham
 P. H. Cadell
 Capt. W. L. Campbell
 Major G. S. Crawford
 W. C. M. Dundas
 Lt.-Col. V. N. Hickley
 H. F. Howard
 J. H. Leco
 L. Mercer

Bhupendra Nath Mitra
 A. P. Muddiman
 J. E. Pearson
 H. L. Stephenson
 Major H. B. St. John
 J. H. Stone
 Abanindra Nath Tagore
 Major G. K. Walker
 C. C. Watson
 Hugh Edward Clark
 Percy James Mead
 Deba Prasad Barbadhikari
 Frank Charles Daly
 Mir Shams Shah Khan Bahadur
 Haji Bukhsh Ellahi Khan Sahib
 Frank Edwin Gwyther
 James Garrae Covenston
 Louis R. B. Cobden Ramsay
 William Bell Barton
 George Bailey Scott
 Rangnath Narsingh Mudholkar
 Hebbalajis Vejanur Nanjundayya
 Major James Curry Robertson
 William Sinclair Morris
 George Frederick Buckley
 Major J. D. E. Holmes
 Baghunnath Venkaj Sabnis
 Lieut. Col. William Motesworth
 Phillip Glynn Meserent
 Lalubhai Samaldas Metha
 Leonard Birch
 Mohendranath Ray
 Frank Frederick Lyall
 Lieut. Col. George James Hamilton Bell
 Frank Currie Lewis
 Lewis French
 Col. Sidney Mercer Renny
 Capt. Walter Hugh Jeffery
 Richard Meredith
 Albert Howard
 Major E. D. Wilson Greig
 Harold Arden Close
 Richard Hugh Tickell
 Francis Samuel Alfred Storock
 Lieut. Col. Fitz Warren Lloyd
 Major Arthur Leslie Jacob
 Nawab Khair Baksh Khan Bahadur
 Thomas Summers
 Henry James Wakely Fry
 C. D. J. Carmichael
 Kiran Chandra De
 Frank Willington Carter
 Charles Montague King
 Shlekh Bahi Hussain Khan Bahadur
 Edward Rawson Gardiner
 George Thomas Barlow
 Frederick Samuel Philip Swann
 Berkeley John Byng Stephens
 Mir Kamal Khan Jam of Las Bela Kalat
 Captain Walter Lumsden
 Colonel Dewan Bishan Das (Jammu and Kashmir)
 Major Frederic Gauntlett
 Major Samuel Richard Christophers
 Colonel George William Patrick Denny
 William Peter Sangster
 Capt. William Henry Irvine Shakspeare
 Montague Hill
 Capt. Frederick Marshman Bulley
 Bahadur Abdul Samad Khan of Rampur

OFFICES OF THE ORDER.

Secretary, Lieut.-Col. Sir A. H. McMahon
 Registrar, Col. Sir Douglas Dawson

The Imperial Order of the Crown of India.

This Order was instituted Jan. 1, 1878 and for a like purpose with the simultaneously created Order of the Indian Empire. It consists of the Queen and Queen Mother with some Royal Princesses, and the female relatives of Indian Princes or of persons who have held conspicuous offices in connection with India. Badge the royal cipher in jewels within an oval surmounted by an Heraldic Crown and attached to a bow of light blue watered ribbon, edged white. Designation, the letters C I.

Sovereign of the Order

THE KING EMPEROR OF INDIA.

Ladies of the Order (C I)

Her Majesty The Queen
 H. M. Queen Alexandra
 H. M. the Queen of Norway
 H. R. H. the Princess Royal
 H. R. H. the Princess Victoria
 H. R. H. the Princess Christian of Schleswig Holstein
 H. R. H. the Princess Louise (Duchess of Argyll)
 H. R. H. Princess Henry of Battenberg
 H. I. and H. R. H. the Dowager Duchess of Saxe-Coburg and Gotha
 H. R. H. the Duchess of Connaught
 H. R. H. the Duchess of Albany
 H. R. H. the Duchess of Cumberland
 H. R. H. the Princess Frederica Baroness of von Pawel Kamnitschen
 H. R. H. the Dowager Grand Duchess of Mecklenburg Strölin
 H. R. H. the Princess Ferdinand of Roumania
 H. I. and H. R. H. the Grand Duchess Cyril of Russia
 H. R. H. the Hereditary Princess of Hohenlohe-Langenburg
 H. R. H. the Crown Princess of Sweden
 H. R. H. the Princess Patricia of Connaught
 H. R. H. the Princess Victoria Elizabeth Augustine Charlotte, Hereditary Princess of Saxe-Meiningen
 H. H. the Princess Victoria of Schleswig Holstein
 H. H. the Princess Marie-Louise of Schleswig-Holstein
 Baroness Kintola
 Dowager Countess of Mayo
 Mrs. Charles Coates
 Lady Jane Emma Orlington
 Dowager Countess of Lytton
 Dowager Baroness Lawrence
 Lady Temple
 Dowager Baroness Napier of Magdala
 Lady Grant Duff
 Dowager Marchioness of Dufferin and Ava
 Mrs. George Cornwallis-West
 Baroness Rosy
 H. H. Maharani of Cooh Behar
 Marchioness of Lansdowne
 Baroness Harris
 H. H. Maharani of Gwalior
 Constance Mary Baroness Wenlock
 H. H. Maharani Sahib Chitima Bai Gaskwar
 H. H. Rani Sahib of Gondal
 H. H. the Dowager Maharani of Mysore
 Lady George Hamilton

H. H. the Maharani Sahiba of Udaipur
 Alice, Baroness Northcote
 Nora Henrietta, Countess Robert
 Amelia Maria, Lady White
 Mary Katherine, Lady Lockhart

Baroness Amptill
 Countess of Minto
 Marchioness of Crewe
 H. H. Begum of Bhopal
 H. H. Maharani Shri Nundkavarba

THE KAISAR I HIND MEDAL.

This decoration was instituted in 1900, the preamble to the Royal Warrant—which was amended in 1901 and 1913—being as follows:—Whereas We, taking into Our Royal consideration that there do not exist adequate means whereby We can reward important and useful services rendered to Us in Our Indian Empire in the advancement of the public interests of Our said Empire, and taking also into consideration the expediency of distinguishing such services by some mark of Our Royal favour. Now for the purpose of attaining an end so desirable as that of thus distinguishing such services abroad, We have instituted and created and by these presents for Us Our Heirs and Successors, do institute and create a new Decoration. The decoration is styled The Kaisar-i Hind Medal for Public Service in India and consists of two classes. The Medal is an oval shaped Badge or Decoration—in gold for the First Class and in silver for the Second Class—with the Royal Cypher on one side and on the reverse the words Kaisar-i Hind for Public Service in India. It is suspended on the left breast by a dark blue ribbon.

Recipients of the 1st Class.

Abdus Samad Khan of Rampur
 Ahmad, Khan Bahadur Qazi Khalid ud Din
 Alibek, The Rev Samuel Scott
 Amarchand, Rao Bahadur Ramnarayan
 Amptill, Margaret, Baroness
 Ashton, Albert Frederick
 Barker, Benjamin Russell
 Barnes, Major Ernest
 Beatty, Francis Montagu Algernon
 Beck, Miss Emma Josephine
 Bell, Lt-Col Charles Thorball
 Benson, Lady
 Bentley Dr Charles Albert
 Bhandari Rai Bahadur Gopal Das
 Bikaner, Maharaja of
 Bingley Brig. General Alfred
 Biwalkar Sardar Parashram Krishnasao
 Bonig, Max Carl Christian
 Booth Tucker Frederick St. George de Loutour
 Bosquet, Oswald Vivian
 Bose, Dr Kallash Chandra
 Bramley Percy Brooke
 Bray General Deays Desatimares in Baluchistan
 Broadway Alexander
 Bruntou, James Forest
 Buchanan, Rev John
 Burn, Richard
 Burnett, General Sir Charles John
 Calnan Denis
 Campbell, Lieutenant-Colonel Robert Neil
 Campton, John Montrose
 Candlish, Misses Bradford
 Carlyle, Lady
 Carter, Edward Clark
 Chandra, Rai Bahadur Kari Mahan
 Chatterton Alfred
 Chaudhuri, Raja Sarat Chandra Rai
 Chetty Dewan Bahadur K P Puttanna
 Chinal Ardeahir Dinsbaji
 Chinavati, Shankar Madho
 Coldersham William
 Conley Mrs. Alice
 Cousens Henry
 Cowasjee Herwanjee
 Cox, Arthur Frederick
 Crawford, Francis Colomb
 Dane, Lady
 Darbhanga, Maharaja of
 Das Ram Saran
 Davies, Arthur
 Davies, Mrs. Edwin
 Dawson, Lieutenant-Colonel Charles Hutton
 Deane, Lieutenant Colonel Herbert Edward
 deLotbiniere, Lieutenant-Colonel Alain C Joly
 Dewas (Junior Branch) Raja of
 Dyal Singh Sardar Man, Sardar Bahadur
 DuBern, James Emile
 Dyson, Lieutenant-Colonel Thomas Edward
 Earle The Honble Sir Archdale
 Egerton, William
 Ewing The Rev Dr J C R.
 Firth Mrs. E J (with Gold Bar)
 Francis Edward Bicham
 Gandhi Mohandas Karamchand
 Ghosal Mr Jyotsunath
 Glazebrook N S
 Gonsaga Rev Mother
 Graham, The Rev John Anderson
 Gratton, Major Henry William
 Guilford, The Rev E (with Gold Bar)
 Gwallor Maharaja of
 Gwyther Lieut Colonel Arthur
 Hahn The Rev Ferdinand
 Haig, Lieutenant-Colonel Patrick Balfour
 Hall, Harold Fielding Patrick
 Hamilton, Major Robert Edward Archibald
 Harvey, Lieut Colonel Herbert de Vere
 Hildesley The Rev Alfred Herbert
 Hixson, Edward Marsden
 Hoggan W J Alexander
 Holderness Sir Thomas William
 Home Walter
 Howard, Mrs. Gabrielle Louise Carolin
 Hume, The Rev R. A.
 Humphreys, Robert
 Husband, Major James
 Hutchinson, Sir Sydney Hutton Cooper
 Hutchinson, Major William Gordon
 Hutwa The Maharani Jnan Manjari Kuori of
 Hyatt Mrs. Anna
 Irvine, Lieutenant-Colonel Thomas Walter
 Ismail, Muhammad Yusuf
 Ives Harry William Maclean
 Jacob, Colonel Sir Samuel Swinton
 James Lieutenant-Colonel Charles Henry
 Jankibai
 Joshi, Ram Bhan Meghasham, Rao Bahadur
 Kayur, Raja Ban Bihari
 King, Mrs. D
 Kirkpatrick, Clarence

- Kloppsch, Dr Louis
 Ko, Taw Sein
 Kothari The Hon ble Mr Jehangir Hormusji
 Lamb The Hon ble Sir Richard Amphlett
 Lindsay, D Arcy
 Ling, Miss Catharine Frances
 Lovett, The Hon ble Mr Harrington Verney
 Luck Wilfred Henry
 Lukis Lady
 Lyall Frank Frederick
 Lyons, Colonel Robert William Steele
 Macwatt, Lieutenant-Colonel Robert Charles
 Madhava Rao Vishwanath Pattankar
 Madhavan Nair M R Rv T Avergal
 Mahdi Humat Nawab Mirza
 Mahomed Ajmal Khan Hakim Hanik ul mulk
 Malegaon Raja of
 Malvi Tribhuvandas Narottandas
 Mannens-Smith The Hon'ble Mr Francis
 St George
 Mary of St Paula Rev Mother
 Mayes Herbert Frederick
 McCarrison Major Robert
 McCloghry Colonel James
 Meethilda Rev Mother
 Miller The Rev William
 Minto Mary Caroline
 Morgan George
 Muhammad Hussain Khan Khan Bahadur
 Morrison Honorary Captain James
 Muir Mackenzie, Lady Thérèse
 Murray, George Ramsay
 Naidu, Mrs. Sarojini
 Nanak Chand
 Nariman Dr Tempuji Bhikaji
 Neve, Dr Arthur
 Nisbet John
 Noyce William Morey
 Oldham, Charles Evelyn Arbuthnot William
 O Meara, Major Eugene John
 O Donnell, Dr Thomas Joseph
 Pandit, Sitaram Narayan
 Preley Dr Thomas Franklin
 Phelps Edwin Ashby
 Pitcher Colonel Duncan George
 Plant, Captain William Charles Trew Gray
 Gambler
 Poynder Lieutenant-Colonel John Leopold
 Pritchard Lt-Col Charles Hamerton
 Reid, Frederick David
 Reynolds, Leonard William
 Roney The Very Rev The Abbe Noel
 Root Major Ernest Reinhold
 Row, Dr Bhagavendra
 Roy, Babu Ramendra Lal
 Roy Rao Jogendra Narayan
 Sallana, Raja of
 Sell, The Rev Canon Edward
 Semple, Lieutenant-Colonel Sir David
 Samkhar Maharaja of
 Shah Rai Bahadur Mahabir Prasad
 Sharp Henry
 Shepherd Rev James
 Sheppard, Mrs. Adeline B
 Sheppard, William Didbury
 Short, Lieutenant-Colonel Robert
 Shoubridge, Major Charles Alban Greivis
 Singh, Raja Bhagwan Bakshi
 Singh, Rai Hira
 Singh, Raja Kamalchawari Parahad
 Sinha, Purnendu Narayan
 Skreberud, The Rev Lammoten
 Smith, Lieutenant-Colonel Henry
 Sonabji, Miss Cornelia
 Southon, Major Charles Edward
 Spence, Christina Philippa Agnes
 St Jeager William Douglas
 St Lucie Reverend Mother
 Stanes, Robert
 Stokes Dr Williams
 Sukhdeo Prasad Pandit
 Tabard, The Rev Antoine Marie
 Talati Bidalji Dorabji
 Taylor The Rev George Pritchard
 Taylor Dr Herbert F Lechmere
 Thomas, The Rev Stephen Sylvester
 Thurston Edgar
 Tilly Harry Lindsay
 Tucker Major William Hancock
 Turner Dr John Andrew
 Tyndale-Biscoe, The Rev Cecil Earle
 Tyndal, Major Jasper Robert Joly
 Vaughan, Lieutenant-Colonel Joseph Charles
 Stielke
 Venugopala, Raja Bahadur
 Wagner Rev Paul
 Wake, Lieutenant-Colonel Edward St Aubyn
 (with Gold Bar)
 Wakefield, George Edward Campbell
 Walker Lady Fanny
 Walter Major Albert Elijah
 Ward Major Ellacott Leamon
 Wheeler The Rev Edward Montague
 Whittion, The Rev David
 Wilkins Lieutenant-Colonel James Sutherland
 Wilkinson, Lieutenant-Colonel Edmund
 Willington the Lady
 Wilson-Johnston, Joseph
 Winter Edgar Francis Latimer
 Wood, Arthur Robert
 Young, The Rev John, Cameron
 Youngusband Arthur Delaval
 Youngusband, Lieutenant-Colonel Sir Francis
 Edward
- Recipients of the 2nd Class**
- Abul Fattah Mouli Baiyed
 Abdul Ghanl
 Abdul Hussain Mian Bhai
 Abdul Kadir
 Abdul Majid Khan, Colonel Muhammad
 Abdul Majid Khan
 Abdul Rahman, Mahomed
 Abdur Rahim
 Abdur Razzak Khan Subadar
 Adavani Motiram Showkram
 Agha Mohamed Khalil Bin Mohamed Kari
 Ali Shabazz, Bakhsh
 Allen Rev Frank Van
 Amar Nath Lala
 Amar Singh
 Anastasia Sister
 Anderson Andrew
 Andrew The Rev Adam
 Ansonb Major Allen Mellers
 Apte Hari Narayan
 Askwith Miss Anne Jane
 Alkhason Lady Constance
 Augustin, The Rev Father
 Asis Hussain, Khan Sahib Mir
 Badri Parahad
 Bahmanji Mancherji
 Baker, Honorary Major Thomas
 Banerji, Professor Jamini Nath
 Banka, Dr Charles
 Bapat, Bhaskar Sadashiva Krishna
 Bardsley Miss Jane Blissett

Baw U Kan	Dip Singh, Lieutenant
Bayley, Lieut. Colonel Edward Charles	Douglas, The Rev John
Beaton, Robt. Nicholas Dodd	Dun Maung Ne
Beg, Mirza Kalkoh Beg Fridun	Dundas, Charles Lawrence
Best, James Theodore	Dunlop Alexander Johnstone
Beville, Lieutenant-Colonel Francis Granville	Durjan Singh, Thakur
Bhagwandas, Bal Zacobai	Dutta, Mahta Harman
Bhajan Lal	Eagles Thomas (azaly)
Bhate, Pandit Balkrishna Govind	Eaglesome, George
Bhide, Basoji Janardhan	Edgell, Lieutenant-Colonel Edward Arnold
Bhutti, Chhotelal Goverdhan	Emanuel, Mrs.
Blasbehwar Nath, Lala	Evans The Rev John Ceredig
Blewaa, Babu Anonda Mohan	Evans Miss Josephine Annie
Blackham, Major Robert James	Farret Miss Helen Margaret
Blackwood, John Ross	Farzand I Ahmad, Khan Bahadur Kazi Sayid
Blake, The Rev William Henry	Freyne The Rev Father Etienne
Blenkinsop Edward Robert Kaye	French, Lieutenant-Colonel Thomas
Bolster Miss Anna	Flashman Thomas Charles
Borrah, Babu Bahinarayan	Fletcher Miss
Bose Miss Mona	Forman, The Rev Henry
Bowen Griffith	For Alfred Charles
Brahmanand, Pandit	Frances, Sister Jane
Brander Mrs. Isabel	Fraser William
Brunner Major Arthur Grant	Fraser Robert Thomson
Brook, Miss Lillian Winifred	Fyfeon Hugh
Brough, The Rev Anthony Watson	Gajjar Mrs. Shivagauri
Browne, Charles Edward	Gajbhai Bai
Brown, Dr Edith	Garhwala, Lieuten.
Burt, Bruce Chudleigh	George, Miss Jessie Eleanor
Cain, Mrs Sarah	Godfrey Thomas Leonard
Campbell, The Rev Andrew	Gomka, Balinath
Campbell Miss Kate	Goodbody, Mrs.
Campbell Miss Susan	Gorman Patrick James
Campbell Miss Mary Jane	Gowami Sri Sri Naradev Dakshinpat Adhkar
Campbell, The Rev Thomas Vincent	Gowardhandas, Chaitrabhuji
Carr Miss Emma	Grant, Major John Weyman
Carr Thomas	Grant Mrs. nes Miss Lillian Blong
Catherine, Sister	Grant Miss Jean
Cattell, Major Gilbert Landale	Gray, Commissary William David
Cedilla Sister Fannie	Greany Peter Mawe
Chamborlain, The Rev William Isaac	Greenfield, Miss B.
Chandler The Rev John Scudder	Griessen, Albert Edward Pierre
Chatterji The Rev K.C	Gumbley, Mr Douglas
Chandhuri, Purna Chandra	Gune, Trimbak Raghunath
Chitale, Ganesh Krishna	Gyi U Pet
Churchward, P. A.	Halyati Inabb Mathk
Chye, Loong	Hanrahan, W G
Chancey, John Charles	Harrison Henry
Clerke, Honorary Major Louis Arthur Henry	Harrison, Robert Tullis
Cutlerback Peter Henry	Hart Miss Louisa
Coombs George Oswald	Harvey, Miss Rose
Correa, Miss Marie	Hatch, Miss Sarah Isabella
Cortborn Miss Alice	Haworth, Major Lionel Berkeley Holt
Cottle Mr. Adie	Hayes, Miss Mary Lavinia
Coxon, Stanley William	Henderson Miss Agnes
Cumming James William Nicol	Higby Miss Sarah J
Cummings, The Rev John Ernest	Higgins, Andrew Frank
Cutbark, Rev William	Hill, Elliott
Dalrymple-Hay Charles Vernon	Hoffman The Rev Father John S J
Das, Ram, Lala	Holbrook Major Bernard Frederick Roper
Das, Maibura, Lala	Holden, Major Hyla Napier
Das, Niranjan	Holland, Dr Henry Tristram
Dasia, Dr Dina Nath Pritha	Homer Charles John
Dawe Miss Ellen	Hope Dr Charles Henry Standish
Dawson, Mrs. Charles Hutton	Hughes, Thomas Oswald
Deane, George Archibald	Hunter Honorary Captain James
Deodhar, Gopal Krishna	Hutchinson Dr John
Deogi, Hazi Ahmed, Khan Sahib	Ishan Ali
deKantow, Mrs. Mary Aphraia	Jaljee Bai (Mrs Pettit)
Diamond, Sergeant J	Jainath, Pandit
Dewes, Lieutenant-Colonel Frederick Joseph	Jambusarvala A Horgovandas
Dhanspatral, Sardar Bahadur	Joglekar, Rao Sahib Ganesh Venkatesh
Dharm Chand Lala	Johnson, Augustus Frederick
Dilshad Begum	Jones, The Rev John Peter

Jones, The Rev Robert	Mudali, Vallappakkam Dairadigomol Thano-
Jones, The Rev John Pengwern	davarayan
Joishi, Trimbak Waman	Mudallal Bangalore Perumal Annaswami
Joss, Miss F	Muhammad Yusuf Shams-ul Ulama Khan
Joti Prasad, Lala	Bahadur
Judd, C B	Mukharji Babu Jogendra Nath
Jwala Prasad Mrs.	Mukharji Babu Nagendra Nath
Jwala Singh, Sirdar	Muller, Miss Jenny
Kalubave Azam Kesarkhan	Muller, Oswald Valdemar
Kanow Yusuf	Murli Dhar
Kapadia, Miss Molibai	Murphy Edwin Joseph
Karve Dhandu Keshav	Myat, Maung Htoon
Kastur Chand Daga, Seth, Fir	Nabi Baksh
Kelavkar Miss Krishnabai	Nag Mrs. Basil Mukhi
Kelly, Miss Eleanor Sarah	Naimullah Mohamed
Ker Thomas	Nasim Able
Khujooma Radhrshah Kowrojee	Nasir Alio Bertram
Kidar Nath Lala	Nasim Har
King, Robert Stewart	Narayan Pershad Babu
Knolls Major Robert Walter Edmond	Nariman Khan Bahadur Manekji Kharvedji
Knox, Major Robert Welland	Narpat Singh Babu
Ko, U	Nasrulla Khan Mirza
Kothewala Mulla Yusuf Ali	Norris Mrs Margaret
Kreyer Lieutenant-Colonel Frederick August	O Maung Po
Christian	O'Brien Major Edward
Kugler Miss Anna Sarah	O Connor Brian Edward
Kwaw Maung	O Hara Miss Margaret
Lang John	Old Frank Shepherd
Langhorne Frederick James	Orman Honorary Captain Charles Henry
Lancaster Dr Arthur Colborne	Orr Adolphe Ernest
Lauchlin M. J. H. M.	Orr James Peter
Lawrence Captain Henry Ruidler	Outram, The Rev A
Lawrence Henry Stavelov	Owen Captain Robert James
Lealie-Jones Leveoester Hudson	Owen C B
Lloyd Miss Elizabeth	Pai Babu Baroda Sundar
Looke Robert Henry	Pain Major Randle Harry
Low Charles Ernest	Pandit Vasudeo Ramkrishna
Lund, George	Parbati Bai Hussammat
MacAlister The Rev G	Park The Rev George W
Macdonald, Captain Charles Reginald	Parsons Richard
Mackenzie Alexander McGregor	Parsons Ronald
Mackenzie Howard	Parsons W
Mackinnon Miss Grace	Patel, Barjorji Dorabji
Macleod Lieut.-Colonel John Norman	Patel Jeena
Mackellar Dr Margaret	Pathak, Vithal Narayan
Macphail The Rev James Merry	Pattack Ram Sahai
Macphail Miss Alexandrina Matilda	Patonon Miss Rachel
Madan Mr Rustamji Hormasji	Patrick Sister
Maddox, Lieutenant-Colonel Ralph Henry	Perroy Rev Father
Mahadevi, Srimati	Pennell (nee Sorabji) Mrs. Alice Maude
Mahomed Allanur Khan	Peters, Lieutenant-Colonel Charles Thoma
Maiden J W	Phalibus Miss Rose Margaret
Maitra Babu Bhuvan Mohan	Pierce, Miss Ada Louise
Maitik Sashi Bhuvan	Pillay Chinnappa Singaravallu
Marscan, Esmal Kadir	Pinney, Major John Charles Digby
Maske, Sister	Pinto Miss Teresa
Mary of St Vincent Sister	Plowden Major Trevor Chichele
McCowan, Oliver Hill	Powell John
McDonald Joseph James	Prabhu Anantao Raghunath
McGregor Duncan	Prithidas Shevakram
Mead Rev Cecil bilas	Prior The Rev Eustace Dickinson
Mitcheson, Miss	Pridoux Frank Winckworth Austice
Mitra, Rajeswar	Purshotandas Thakurdas
Mitter Mrs.	Pyo Maung Tet
Mohammed Khan	Rai Chaudhuri Parbati Sankar
Moitra Akhoy Kumar	Ralkes Mrs. Alice
Moore Nursing Sister Dora Louisa Traskove	Rait, Miss Helen Anna Macdonald
Moore, Miss Eleanor Louisa	Raj Bahadur Pandit
Moore The Rev Pitt Holland	Ram Mr Bhagat
Morris, Major Robert Lee	Ramchandra, Daji
Motilal, Seth of Piplia	Ramgopal, Mallani, Seth
Mount, Captain Alan Henry	Ram Singh M V O
Moxon, Miss Lala	Ranade, Mrs. Ramabai
Moundar Jadu Nath	Ranjit Singh

Rattansi Mohi	Stephens John Hewitt
Ray, Harindra Nath	Stephens, Mrs Grace
Ray Babu Barut Chandra	Stevens, Mrs. (Ethel)
Reas Ali Khan, Sardar	Stevenson Surgeon General Henry Wickham
Reed, Mrs. Lillie	Stewart, Major Hugh
Richardson Mrs Catherine Stuart	Stewart, Mrs. Lillian Dorothea
Rita, Staffan Edward	Stewart, Thomas
Roberts, Captain Charles Stuart Hamilton	St. Joseph J D
Robinson James	Strip Samuel Algernon
Robinson Lieutenant Colonel William Henry	Sultan Ahmed Khan
Banner	Sunder Lal
Roe, Brigadier General Cyril Harcourt	Sundrabai Bai
Roe, Mrs Edith Mary	Surebhan Janji
Raushar Lal Lala	Swainson Miss Florence
Rukmabai, Dr	Taleyarkhan Mr Manekshah Cawasba
Ruston, Randolph	Talib Mehd Khan Mahi
Sadler A W Woodward	Tambe Dr Gopal Rao Ramchandra
Sahan Ram Kali	Tarapurwalla Fardunji Kavarji
Sahay, Lala Deonath	Taylor Rev Alfred Prideaux
Saint Monica The Rev Mother	Taylor Mrs Florence Prideaux
Salkield Tom	Taylor, John Norman
Samarth, Wasudeo Mahadeo	Tha Maung Shwe
Samuels, Joseph	Thien Maung Po
Schultze, The Rev Frederick Volkmar Paul	Theobald Miss
Scotland Lieutenant-Colonel David Wilson	Thomas Samuel Gilbert
Shah, Babu Lal Behari	Timothy Samuel
Shah, Mohamed Kamal, Salyid	Thompson B C
Shah Mohammad Nawaz	Thomson Robert Douglas
Shah, Reverend Ahmad	Thomson The Rev G Nicholas
Shannath	Thov Herbert Dominick
Sheore Raghunath Balwant	Tok Maung Ba
Shyam Bih Raja Francis Xavier	Tok Maung Po
Shyam Sunder Lal	Thorn Miss Bertha
Simcox Arthur Henry Addenbrooke	Tomkins, Lionel Linton
Smikins, Charles Wyllins	Toddall, Miss Emma
Simon Ester M.	Umar Khan Malik Zorawar Khan
Sinclair Reginald Leahy	Vivekvarays Moksharadman
Singh, Apy Dhol	Watt Robert William Hamilton
Singh, Dider	Wakedeld George Edward Campbell
Singh, Babu Harnath	Wakewalker P B Churno
Singh, Makkhan	Waller Frederick Chighton
Singh, Raja Bahadur Padmanand	Warless, Dr William James
Singh, Babu Ramdhan	Ware Donald Horne
Singh, Seka B ash	Webb-Ware Mrs Dorothy
Singh Subada Sher	Waghell Miss Anna Jane
Singh, Bisaddar Major Hanwant	Weir Henry
Smith, Miss Ellen	Western, Miss Mary Priscilla
Smith, The Rev Frederick William Ambery	Wildman Miss Elizabeth Annie
Smith, Mrs. Henry	Wiseman Honorary Captain Charles Sherlife
Sommerville The Rev Dr James	Woerner Miss Lydia
Sri Ram Kunwar Thakuram	Wood, The Rev A
Starte, Oliver Harold Baptist	Yerbury, Miss J
Steel, Alexander	Young Dr M Y
Steele The Rev John Ferguson	Zahir ul Husan Muhammad

Indian Names and Titles.

There is a bewildering multiplicity of Indian titles, made all the more difficult inasmuch as there is a difference of nomenclature between the titles of Hindus and Mohammedans. Some titles are hereditary and represent ruling chiefs or those nominally such (and of these there are no less than some 620 whilst of the titles themselves some 200 are known) others are personal honours conferred on individuals by the Indian Government, and even then sometimes made hereditary. Yet again there are numerous complimentary titles, or specifications of office expressed in Hindu phrases of which we have occasionally supplied the interpretations. It must be added that though *ende* is often figuring in the names it has nothing whatever to do with the titles. Amir Khan Mir Sultan Sri &c are confusingly used as both titles and names.

The order of rank is thus given by Sir R. Lethbridge in *The Golden Book of India*

Hindu—Maharaja Bahadur Maharaja Raja Bahadur Raja Rai Bahadur Rai Sahab Rai

Mohammedan—Nizam Nawab Bahadur Nawab Khan Bahadur Khan Sahib Khan

Parsi and Ben Israelites—Khan Bahadur Khan Sahib

Afso—a corruption of the English officer

Ahiwala—name of a princely family resident at the village of Ahlu near Lahore

Akhundzada—son of a Head Officer

Aiyah (Sindhi)—of exalted rank

Ali Rase—Sea King (Lacradives)

Amir (corruptly *Emir*)—a Mohammedan Chief often also a personal name

Asaf—a Minister

Baba—lit. father a respectful Mr
Ishah Your Honour

Babu—strictly a 5th or still younger son of a Raja, but often used of any son younger than the heir whilst it has also grown into a term of address—Esquire. There are however one or two Rajas whose sons are known respectively as—1st Kunwar 2nd Diwan 3rd Thakur 4th Lal 5th Babu

Bahadur—lit. brave or warrior
title used by both Hindus and Mohammedans, often bestowed by Government added to other titles it increases their honour but alone it designates an inferior ruler

Bakhshi—a revenue officer or magistrate

Begum or Begam—the feminine of Nawab combined in Bhopal as Nawab Begum

Baser—apparently a large land-owner

Bhonsale—name of a Maratha dynasty

Bhup—title of the ruler of Cooh Behar

Bhugti—name of a Baluch tribe

Chhatrapati—one of sufficient dignity to have an umbrella carried over him

Dada—lit. grandfather (paternal) any venerable person

Darda and Dewlat—State also one in office,

Deb—a Brahminical priestly title, taken from the name of a divinity

Dharaj—Lord of the Lands added to Raja &c it means paramount

Dewan—a Vizier or other First Minister to a native Chief, either Hindu or Mohammedan, and equal in rank with Sardar under which see other equivalents. The term is also used of a Council of State

Elaya Raja—title given to the heir of the Maharaja of Travancore

Farzand (with defining words added)—lavo rlu or beloved

Fatih—victory

Fath Jeang—Victorious in Battle (a title of the Nizam)

Guckwar (sometimes *Gucowar*)—title with Maharaja added of the ruler of Baroda. It was once a caste name and means cowherd i.e. the protector of the sacred animal but later on in common with Holkar and Sindhia, it came to be a dynastic appellation and consequently regarded as a title. Thus a Prince becomes Guckwar on succeeding to the estate of Baroda. Holkar to that of Indore and Sindhia to that of Gwalior

Hafiz—guardian

Haji—one who has made pilgrimage to Mecca.

Hvra Lal—diamond ruby

Holkar—see Guckwar

Jah—a term denoting dignity

Jam (Sindhi or Baluch)—Chief

Kazi—(better written *Qazi*)—a Mohammedan magistrate

Khan—originally the ruler of a small Mohammedan State now a nearly empty title though prized. It is very frequently used as a name, especially by Afghans and Pathans

Khanwa—a Persian word for "master" sometimes a name

Kunwar or Kunar—the heir of a Raja

Lal—a younger son of a Raja (strictly a 4th son, but see under Babu)

Lekwana or Lekwana—Protection of the World title of the Chiefs of Dholpur and Dattia.

Mahant—a feudal title borne by the heads of a Hindu religious body

Maharaja—the highest of hereditary rulers among the Hindus, or else a personal distinction conferred by Government. It has several variations as under Raja, with the addition of *Maharaj Rana* the feminine is *Maharani* (*maha*—great)

Mahit—master proprietor

Mian—title of the son of a Rajput Nawab resembling the Scottish Master

Mir—a leader an inferior title which, like Khan, has grown into a name. It is especially used by descendants of the Chiefs of Sind.

Mirza—if prefixed, "Mr." or "Esquire."

Mong, Mung, or Mung (Arakanese)—leader

Moulei or Moulai—a learned man or teacher

Mudalgar or Mud-tar—a personal proper name, but implying steward of the lands

Mumukshu-daula—distinguished in the State (Mulk, in the country)

Musaki—president, or presiding official

Myvun—Mr

Nawab—originally a Viceroy under the Moghal Government, now the regular leading title of a Mohammedan Prince corresponding to Maharaja of the Hindus

Nizam—a ruler (not to be confused with following)

Nizam—the title of the ruler of Hyderabad the one Mohammedan Prince superior to Nawab

Nona Thibetan—the ruler of Spitta

Pandit or Pandit—a learned man

Pushkup—manager or agent

Prince—term used in English courtesy for "Shahzada, but specially conferred in the case of Prince of Arcot (called also Arun i Arcot)

Raja—a Hindu Prince of exalted rank, but inferior to Maharaja. The feminine is *Rani* (Princess or Queen) and it has the variations *Raj Rana Rao Rai, Rawal, Rawat, Runkher, Runkher, and Rawat*. The form *Rai* is common in Bengal, *Rao* in S & W India

Raj Rajeshwar—King of Kings

Rasuldar—commander of a troop of horses

Sahab—the Native Hindu term used to or of a European (Mr Smith would be mentioned as Smith Sahab, and his wife "Smith Mam Sahab" but in addressing it would be Sahab fem. Sahaba, without the name) occasionally appended to a title in the same way as Bahadur but inferior (=master). The unusual combination Nawab Sahab implies a mixed population of Hindus and Mohammedans.

Sahibzada—son of a person of consequence.

Said, Sayid, Sayid, Sir, Syed—various forms for a title adopted by those who claim direct male descent from Mohammed's grandson Husain

Sardar (corrupted to *Sirdar*)—a leading Government official, either civil or military even a Grand Vizier. Nearly all the Punjab Barons bear this title. It and Diwan are like in value and used by both Hindus and Mohammedans. So but Mohammedans only are "Wali," Sultan, Amir, Mir, Mirza," Mian, and Khan

Seerat—a Hindu title implying a slight distinction (lit. one-fourth better than others)

Sawbes (Burmese)—a Chief

Shahzada—son of a King.

Shahik or Shakh (Arabic)—a Chief.

Shams-ul-Ulama—a Mohammedan title denoting "learned."

Shamsher-Jang—"Sword of Battle" (a title of the Maharaja of Travancore).

Sidi—a variation of "Said."

Sindhis—see under "Gaukwar"

Sri or Shri—lit. fortune, beauty. A Sanskrit term used by Hindus in speaking of a person much respected (never addressed to him nearly—"Esquire") used also of divinities. The two forms of spelling are occasioned by the intermediate sound of the *s* (that of *s* in the German Stadt)

Subadar—Governor of a province

Sultan—like Sardar

Syed, Syud—more variations of Said

Tahutdar—an Oudh landlord.

Talpur—the name of a dynasty in Sind

Thakur—a Hindu term equivalent to Bahadur whether as affix or alone

Tumandar—a Persian word denoting some office

Umar—term implying the Nobles collectively

Wali—like Sardar. The Governor of Khelat is so termed, whilst the Chiefs of Cabul are both Wali and Mir

Zemindar or Zamindar—a landowner orig. a Mohammedan collector of revenue

Distinctive Badges.—An announcement was made at the Coronation Durbar in 1911, that a distinctive badge should be granted to present holders and future recipients of the titles of Diwan Bahadur, Sardar Bahadur, Khan Bahadur, Rai Bahadur, Rao Bahadur, Khan Sahib, Rai Sahib, and Rao Sahib. Subsequently the following regulations in respect of these decorations were issued—(1) The decoration to be worn by the holders of the titles above mentioned shall be a badge or medallion bearing the King's effigy crowned and the name of the title, both to be executed on a plaque or shield surrounded by a five-pointed star surmounted by the Imperial Crown the plaque or shield being of silver gilt for the titles of Diwan Sardar Khan Rai and Rao Bahadur and of silver for the titles of Khan, Rai, and Rao Sahib. (2) The badge shall be worn suspended round the neck by a ribbon of one inch and a half in width, which for the titles of Diwan and Sardar Bahadur shall be light blue with a dark blue border for the titles of Khan, Rai and Rao Bahadur light red with a dark red border and for the titles of Khan Rai and Rao Sahib dark blue with light blue border.

A Press Note issued in November 1914 states—The Government of India have recently had under consideration the question of the position in which **miniatures** of Indian titles should be worn and have decided that they should be worn on the left breast fastened by a brooch and not suspended round the neck by a ribbon as prescribed in the case of the Badge itself. When the miniatures are worn in conjunction with other decorations they should be placed immediately after the Kaiser-i-Hind Medal.

Indian Distinguished Service Medal.—This medal was instituted on June 28th 1907 by an Army Order published in Simla as a reward for both commissioned and non-commissioned officers of the regular and other forces in India. It bears on the obverse the bust of King Edward VII and on the reverse a laurel wreath enclosing the words For Distinguished Service. The

medal, 1½ inches in diameter is ordered to be worn immediately to the right of all war medals suspended by a red ribbon 1½ in. wide with blue edges ¼ in. wide. This medal may be conferred by the Viceroy of India.

Indian Order of Merit—This reward of valour was instituted by the H. R. I. Co. in 1837 to reward personal bravery without any reference to length of service or good conduct. It is divided into three classes and is awarded to native officers and men for distinguished conduct in the field. On the advancement from one class to another the star is surrendered to the Government and the superior class substituted, but in the event of the death of the recipient his relatives retain the decoration. The order carries with it an increase of one third in the pay of the recipient, and in the event of his death the allowance is continued to his widow for three years. The First Class consists of a star of eight points 1½ in. in diameter having in the centre a ground of dark blue enamel bearing crossed swords in gold within a gold circle and the inscription 'Reward of Valour' the whole being surmounted by two wreaths of laurel in gold. The Second Class star is of silver with the wreaths of laurel in gold and the Third Class entirely of silver. The decoration is suspended from a simple loop and bar from a dark blue ribbon 1½ in. in width with red edges bearing a gold or silver buckle according to class.

Order of British India—This order was instituted at the same time as the Order of Merit, to reward native commissioned officers for long and faithful service in the Indian Army. Since 1878 however any person European or native holding a commission in a native regiment, became eligible for admission to the Order without reference to creed or colour.

The First Class consists of a gold eight-pointed radiated star 1½ in. in diameter. The centre is occupied by a lion rampant guardant upon a ground of light-blue enamel within a dark blue band inscribed Order of British India and encircled by two laurel wreaths of gold. A gold loop and ring are attached to the crown for suspension from a broad ornamental band ¾ in. in diameter through which the ribbon once blue now red is passed for suspension from the neck. The Second Class is 1½ in. in diameter with dark blue enamelled centre there is no crown on this class and the suspender is formed of an ornamental gold loop. The reverse is plain in both classes. The First Class carries with it the title *Bidar Bahadur* and an additional allowance of two rupees a day and the Second the title of *Bahadur* and an extra allowance of one rupee per day.

Indian Meritorious Service Medal—This was instituted on July 27th 1888 and on receipt of the medal the order states a non-commissioned officer must surrender his Long Service and Good conduct medal but on being promoted to a commission he may retain the M. S. medal but the annuity attached to it will cease. On the obverse is the diademed bust of Queen Victoria facing left with a veil falling over the crown behind, encircled by the legend *Victoria Kaisar-i-Hind*. On the reverse is a wreath of lotus leaves enclosing a wreath of palm tied at the base having a star beneath between the two wreaths is the inscription for meritorious service. Within the palm wreath is the word *India*. The medal 1½ in. in diameter is suspended from a scroll by means of a red ribbon 1½ in. wide. The medals issued during the reigns of Queen Victoria's successors bear on the obverse their bust in profile with the legend altered to *EDWARD VIII* or *GEORGE V*.

THE COST OF FAMINE

In the section on Famine (q.v.) the whole policy of the Government of India towards the relief of distress is sketched out and the broad results indicated. They are revealed in a return on the last serious famine which has occurred in India. In the United Provinces the failure of the 1917 monsoon, followed by poor and unseasonable cold weather rains led to a widespread failure of crops affecting an area of 18,000 square miles and a population of 6 millions but the prosperity of the preceding years had enabled the population to develop a far greater staying power than on previous occasions of famine nor was the rise in food prices so marked. Government made loans to cultivators amounting to over £1,500,000 besides suspending land revenue and sanctioning remissions amounting to over £717,000. The necessity for direct measures of relief did not arise till December, which is considerably later than on previous occasions of famine. The cost of direct relief operations to Government including provision of cattle

fodder was about £382,000, a far smaller figure than in the famine of 1907-08 although the estimated loss of food grains was almost as great. The Public Works Department, the civil authorities and district boards arranged for the carrying out of numerous projects with famine labour. These comprised construction of roads, tanks and irrigation works and the reclamation of ravine land—all works of undoubted utility. Gratuitous relief amounted to £80,000. It was given principally to persons incapable of working. A marked feature of the famine was the extreme scarcity of fodder which was met chiefly by concession rates for the carriage of fodder on railways and the supply of hay from the forests. Much good work was done by non-official efforts, and a charitable fund was raised to the amount of £27,424. The total cost of the famine to Government is estimated at £820,000 as against £2,180,000 in 1907-08. Good rains in July and September 1914 finally relieved the situation and ensured a good kharif crop.

Laws and the Administration of Justice.

The indigenous law of India is personal and divisible with reference to the two great classes of the population Hindu and Mahomedan. Both systems claim divine origin and are inextricably interwoven with religion and each exists in combination with a law based on custom. At first the tendency of the English was to make their law public and territorial and on the establishment of the Supreme Court at Calcutta in 1773 and the advent of English lawyers as judges they proceeded to apply it to Europeans and Indians alike. This error was rectified by the Declaratory Act of 1780, by which Parliament declared that as against a Hindu the Hindu law and usage, and as against a Mahomedan the laws and customs of Islam should be applied. The rules of the Shastras and the Koran have been in some cases altered and relaxed. Instances can be found in the Bengal Sati Regulation Act of 1829 the Indian Slavery Act, 1843 the Caste Disabilities Removal Act of 1850 the Hindu Widows Remarriage Act 1856 and other Acts and Codes. To quote the Imperial Gazetteer "A certain number of the older English statutes and the English common law are to a limited extent still in force in the Presidency Towns as applicable to Europeans, while much of the old Hindu and Mahomedan law is everywhere personal to their native fellow subjects but apart from these and from the customary law which is as far as possible recognised by the Courts, the law of British India is the creation of statutory enactments made for it either at Westminster or by the legislatures in India to whom the necessary law giving functions have from time to time been delegated.

Codification

Before the transfer of India to the Crown the law was in a state of great confusion. Sir Henry Conningham described it as "hopelessly unwieldy entangled and confusing." The first steps toward general codification were taken in 1833 when a Commission was appointed, of which Lord Macaulay was the moving spirit, to prepare a penal code. Twenty-two years elapsed before it became law during which period it underwent revision from his successors in the Law Membership and especially by Sir Barnes Peacock the last Chief Justice of the Supreme Court of Calcutta. The Penal Code which became law in 1860, was followed in 1861 by a Code of Criminal Procedure. Substantially the whole criminal law of British India is contained in these two Codes. One of the most eminent lawyers who ever came to India, Sir James Stephen said "The Indian penal code may be described as the criminal law of England freed from all technicalities and superfluities systematically arranged and modified in some few particulars (they are surprisingly few) to suit the circumstances of British India. It is practically impossible to misunderstand the code." The rules of Civil Procedure have been embodied in the Code of Civil Procedure. The Indian Penal Code has from time to time been amended. The Code of Civil Procedure was remodelled in 1908 and the Code of Criminal Procedure in 1908. These Codes are now in force.

European British Subjects

Whilst the substantive criminal law is the same for all classes certain distinctions of procedure have always been maintained in regard to criminal charges against European British subjects. Until 1872 European British subjects could only be tried or punished by one of the High Courts. It was then enacted that European British subjects should be liable to be tried for any offences by magistrates of the highest class who were also justices of the peace, and by judges of the Sessions Courts but it was necessary in both cases that the magistrate or judge should himself be a European British subject. In 1883 the Government of India announced that they had decided to settle the question of jurisdiction over European subjects in such a way as to remove from the code at once and completely every judicial disqualification which is based merely on race distinctions. This decision embodied in the Ilbert Bill, aroused a storm of indignation which is still remembered. The controversy ended in a compromise which is thus summarised by Sir John Strachey (India). "The controversy ended with the virtual though not avowed abandonment of the measure proposed by the Government. Act III of 1884 by which the law previously in force was amended cannot be said to have diminished the privileges of European British subjects charged with offences and it left their position as exceptional as before. The general disqualification of native judges and magistrates remains but if a native of India be appointed to the post of district magistrate or sessions judge his powers in regard to jurisdiction over European British subjects are the same as those of an Englishman holding the same office. This provision however is subject to the condition that every European British subject brought for trial before the district magistrate or sessions judge has the right, however trivial be the charge to claim to be tried by a jury of which not less than half the number shall be Europeans or Americans. Whilst this change was made in the powers of district magistrates, the law in regard to other magistrates remained unaltered. Since 1836 no distinctions of race have been recognised in the civil courts throughout India.

High Courts.

The highest legal tribunals in India are the High Courts of Judicature. These were constituted by the Indian High Courts Act of 1861 for Bengal, Bombay and Madras, and later for the United Provinces superseding the old supreme and Sudder Courts. The Judges are appointed by the Crown. They hold office during the pleasure of the Sovereign at least one-third of their number are barristers, one-third are recruited from the judicial branch of the Indian Civil Service, the remaining places being available for the appointment of Indian lawyers. Trial by jury is the rule in original criminal cases before the High Courts, but juries are never employed in civil suits in India.

For other parts of India High Courts have been formed under other names, the chief

difference being that they derive their authority from the Government of India, not from Parliament. In the Punjab and Burma there are Chief Courts with three or more judges. In the other provinces the chief appellate authority is an officer called the Judicial Commissioner. In Hind the Judicial Commissioner is termed Judge of the Sudder Court and has two co-Judges.

The High Courts are the Courts of appeal from the superior courts in the districts criminal and civil and their decisions are final except in cases in which an appeal lies to His Majesty in Council and is heard by the Judicial Committee of the Privy Council in England. The High Courts exercise supervision over all the subordinate courts. Returns are regularly sent to them at short intervals and the High Courts are able by examining the returns by sending for proceedings and by calling for explanations as well as from the cases that come before them in appeal to keep themselves to some extent acquainted with the manner in which the courts generally are discharging their duties.

Lower Courts

The Code of Criminal Procedure provides for the constitution of inferior criminal courts styled courts of session and courts of magistrates. Every province outside the Presidency towns is divided into sessions divisions consisting of one or more districts and every sessions division has a court of session and a sessions judge with assistance if need be. These stationary sessions courts take the place of the English Assizes and are competent to try all accused persons duly committed and to inflict any punishment authorised by law but sentences of death are subject to confirmation by the highest court of criminal appeal in the province. Magistrates courts are of three classes with descending powers. Provision is made and largely utilised in the towns for the appointment of honorary magistrates in the Presidency towns. Presidency magistrates deal with magisterial cases and benches of Justices of the Peace or honorary magistrates dispose of the less important cases.

Trial before courts of session are either with assessors or juries. Assessors assist, but do not bind the judge by their opinions, on juries the opinion of the majority prevails if accepted by the presiding Judge. The Indian law allows considerable latitude of appeal. The prerogative of mercy is exercised by the Governor General in Council and the Local Government concerned without prejudice to the superior power of the Crown.

The constitution and jurisdiction of the inferior civil courts varies. Broadly speaking one district and sessions judge is appointed for each district. As District Judge he presides in its principal civil court of original jurisdiction. His functions as Sessions Judge have been described. For these posts members of the Indian Civil Service are mainly selected though some appointments are made from the Provincial Service. Next come the Subordinate Judges and Munsifs, the extent of whose original jurisdiction varies in different parts of India. The civil courts, below the grade of District

Judge, are almost invariably presided over by Indians. There are in addition a number of Courts of Small Causes with jurisdiction to try money suits up to Rs. 500. In the Presidency Towns where the Chartered High Courts have original jurisdiction Small Cause Courts dispose of money suits up to Rs. 2,000. As Insolvency Courts the chartered High Courts of Calcutta, Bombay and Madras have jurisdiction in the Presidency towns. In the mofussil similar powers were conferred on the District Courts by the Insolvency Act of 1908.

Coroners are appointed only for the Presidency Towns of Calcutta and Bombay. Elsewhere their duties are discharged by the ordinary staff of magistrate and police officers aided by jurors.

Legal Practitioners

Legal practitioners in India are divided into Barristers at Law, Advocates of the High Court, Vakils and Attorneys (Solicitors) of High Courts and Pleaders. Mukhtlars and revenue agents, Barristers and Advocates are admitted by each High Court to practise in it and its subordinate courts and they alone are admitted to practise on the original side of some of the chartered High Courts. Vakils are persons duly qualified who are admitted to practise on the appellate side of the chartered High Courts and in the Courts subordinate to the High Courts. Attorneys are required to qualify before admission to practise in much the same way as in England. The rule that a solicitor must instruct counsel prevails only on the original side of certain of the High Courts. Pleaders practise in the subordinate courts in accordance with rules framed by the High Courts.

Organisation of the Bar

At Calcutta, Madras and Bombay there is a Bar Committee presided over *ex officio* by the Advocate General. This body is elected by the barristers practising in each High Court and its functions are to watch the interests of the Bar and to regulate its etiquette. At Allahabad, Lahore, Nagpur and Rangoon a similar Bar Committee exists but the electorate is extended to include the vakils or native pleaders and the president is either the senior practising member of the Bar or the Government Advocate. In the larger Districts and Sessions Courts an organisation representing the Bar is usually to be found and in the subordinate Courts including the Revenue Courts similar machinery is generally in use. Pending an opportunity of detailed inquiries in India these general descriptions must suffice.

Composition of the Bar

A considerable change is occurring in the composition of the Indian Bar. The following extract from an informing article in the *Times* (May 25 1914) indicates the character and incidence of this development. During the last forty years a striking change has taken place in the professional class. The bulk of practice has largely passed from British to Indian hands while, at the same time the profession has grown to an enormous extent. One typical illustration may be quoted. Attached to the Bombay High Court in 1871 there

were 38 solicitors, of whom 10 were Indian and 28 English, and 24 advocates of whom 7 were Indian and 17 English. In 1911 attached to the same High Court, there were 150 solicitors, of whom more than 130 were Indian and the remainder English, and 250 advocates, of whom 16 only were English and the remainder Indian.

Law Officers.

The Government of India has its own law colleague in the Legal Member of Council. All Government measures are drafted in this department. Outside the Council the principal law officer of the Government of India is the Advocate-General of Bengal who is appointed by the Crown, is the leader of the local Bar, and is always nominated a member of the Provincial Legislative Council. In Calcutta he is assisted by the Standing Counsel and the Government Solicitor. There are Advocates-General and Government Solicitors for Bombay and Madras, and in Bombay there is attached to the Secretariat a Legal Remembrancer and an Assistant Legal Remembrancer drawn from the Judicial Branch of the Indian Civil Service. The Government of Bengal consults the Bengal Advocate-General, the Standing Counsel and the Government Solicitor and has besides a Legal Remembrancer (a Civil Servant) and a Deputy Legal Remembrancer (a practising barrister). The United Provinces are equipped with a civilian Legal Remembrancer and professional lawyers as Government Advocate and Assistant Government Advocate, the Punjab has a Legal Remembrancer, Government Advocate and a Junior Government Advocate and Burma a Government Advocate, besides a Secretary to the Local Legislative Council.

Sheriffs are attached to the High Courts of Calcutta, Madras and Bombay. They are appointed by Government selected from non-officials of standing the detailed work being done by deputy sheriffs who are officers of the Court.

Law Reports.

The Indian Law Reports are published in four series—Calcutta, Madras, Bombay and Allahabad, under the authority of the Governor General in Council. They contain cases determined by the High Court and by the Judicial Committee on appeal from the particular High Court. These appeals raise questions of very great importance and the Council of Law Reporting for England and Wales show their appreciation by printing the Indian Appeals in a separate volume and have also compiled a digest of Indian Appeals covering the period 1844-1893. The other Provinces and States have series of reports issued under the authority either of the Judiciary or the State.

Legislative Power

The supreme power of Parliament to legislate for the whole of India cannot be questioned. In practice however this power is little used, there being a majority of officials on the Imperial Legislative Council—a majority deliberately reserved in the India Councils Act of 1909—the Secretary of State is able to impose his will on the Government of India and to secure the passage of any measure he may frame regardless of the opinion of the Indian authorities. Legislative Councils have been established both for the whole of India and for the principal provinces. Their constitution and functions are fully described in detailing the powers of the Imperial and Provincial Councils (q.v.). To meet emergencies the Governor General is vested with the power of issuing ordinances, having the same force as Acts of the Legislature but they can remain in force for only six months. The power is very little used. The Governor General-in-Council is also empowered to make regulations having all the cogency of Acts for the more backward parts of the country the object being to bar the operation of the general law and permit the application of certain enactments only.

Bengal Judicial Department.

Sanderson, Sir Laurence	Chief Justice
Toulson, The Hon'ble Mr William, I.C.S.	Palmer Judge
Woodroffe, The Hon'ble Mr John George M.A. Bar at-Law	Ditto.
Mukharji, The Hon'ble Sir Ashutosh, Kt. CSI M.A. D.L.	Ditto
Richardson, The Hon'ble Mr Thomas William, I.C.S.	Ditto
Bar at-Law	
Holmwood, The Hon'ble Mr Herbert I.C.S.	Ditto
Chitty, The Hon'ble Mr Charles William, Bar at Law	Ditto
Fletcher, The Hon'ble Mr Ernest Edward, Bar at Law	Ditto.
Shanmugam, The Hon'ble Mr Sanyal, Bar at-Law	Ditto
Coxe, The Hon'ble Mr Henry Reynell Holled, I.C.S.	Ditto
Chatterji, The Hon'ble Mr Digamber, M.A., B.L.	Ditto
Chatterji, The Hon'ble Mr Kalini Ranjan M.A., B.L.	Ditto
Chandhari, The Hon'ble Mr Asutosh, Bar at-Law	Ditto
Imam, The Hon'ble Mr Sayid Hassan, Bar at Law	Ditto
Banscroft, The Hon'ble Mr Charles Forten, I.C.S.	Ditto
Mallik, The Hon'ble Mr Basanta Kumar, I.C.S.	Ditto (Temporary Additional.)
Chopra, The Hon'ble Mr Edmund Pelly, I.C.S.	Ditto
Ghose, The Hon'ble Mr William Mount Bar at-Law	Ditto
Wainman, The Hon'ble Mr Hugh I.C.S.	Ditto

Bengal Judicial Department—*contd*

Kenrick The Hon ble Mr George Harry Blair, K.C. LL.D., Bar-at Law	Advocate-General
Mitra, The Hon ble Mr Binod Chandra, Bar-at Law	Standing Counsel
Kesteven The Hon ble Mr Charles Henry	Government Solicitor
Newbould The Hon ble Mr B B	Superintendent and Remembrancer of Legal Affairs
Orr John Williams Bar-at Law	Deputy Superintendent and Remem- brancer of Legal Affairs
Ram Charan Mitra	Senior Government Pleader
Hume, J T	Public Prosecutor Calcutta.
Hechle James Herbert	Registrar Keeper of Records Taxing Officer Accountant-General, and Sealer etc Original Jurisdiction
Remfry Maurice	Deputy Registrar Temporary Registrar in Insolvency
Nadim Mohan Chatterji Bar-at Law	Master and Official Referee.
Ryder George	Assistant Registrar (Offg Dy Regtr)
Bonnaud, William Augustus Bar-at-Law	Clerk of the Crown for Criminal Sessions.
Hem Chandra Mitra	Secretary to the Chief Justice and Head Clerk Decree Department (sub <i>pro tem</i>)
Veltch Harold Maszyn B.A. LL.B.	Registrar and Taxing Officer Appellate Jurisdiction
Counsel Frank Rertram	Assistant Registrar
Grey Charles Edward Bar at Law	Officiating Official Trustee and Official Assignee.
Bonnerjee K K Shelly Bar-at Law	Official Receiver sub <i>pro tem</i>
Dobbin F K Bar at Law	Coroner of Calcutta.
Bose, B.N., Bar-at-Law	Offg Editor of Law Reports
Walte, Thomas John	Deputy Registrar

Bombay Judicial Department

Scott, The Hon ble Sir Basil Kt. M.A. Bar-at-Law	Chief Justice
Shah The Hon'ble Mr Lallubhai Asharam M.A. LL.B.	Puisne Judge.
Batchelor The Hon'ble Sir Stanley Lockhart Kt. B.A. I.C.S.	Ditto
Devar The Hon ble Sir Dinsha Dhanjibhai Kt Bar at-Law	Ditto
Beaman The Hon ble Mr Frank Clement Offley I.C.S.	Ditto
Heaton The Hon ble Sir Joseph John I.C.S.	Ditto
McLeod The Hon ble Mr Norman Cranstoun B.A., Bar at Law	Ditto
Jardine M.B. The Hon ble Mr	Advocate General sub <i>pro tem</i> .
French George Douglas	Remembrancer of Legal Affairs
Nisam Joseph, M.A. LL.B., Bar at Law and	Assistant Remembrancer of Legal Affairs
Nicholson Eustace Ferrers	Government Solicitor and Public Prose- cutor
Slater John Sanders, B.A. Bar at Law	Administrator General and Official Trustee
Abdool Muhammad Ali Kazimji B.A., LL.B. Bar-at-Law	Prothonotary Testamentary and Admi- nistrative Registrar
Jijibhai Edalji Modi Bar at Law	Master and Registrar in Equity and Commissioner for taking Accounts and Local Investigations and Taxing Officer
Vasant Rao Anand Rao Dabholkar	Sheriff
Allison, Frederick William B.A. I.C.S.	Registrar Appellate Side
Nasurwanji Dinshahji Gharde, B.A. LL.B.	Deputy Registrar and Sealer, Appellate Side

Bombay Judicial Department—contd

Lambert, E. T.	Coroner (On leave)
Nunan, Dr W	Acting
Siharam Sunderroo Patkar LL.B.	Government Pleader
	SENIOR OF SIND
Prait Edward Millard I.C.S.	Judicial Commissioner
Boyd Charles Clifford	Acting Additional Judicial Commissioner
Hayward Maurice Henry Weston LL.B. Bar at Law	Additional Judicial Commissioner, Acting Puisne Judge
Crouch, Henry Newton LL.B., Bar at Law	Additional Judicial Commissioner

Madras Judicial Department

Wallis The Hon ble Sir John Edward Power Kt	Chief Justice
M.A. Bar-at-Law	
Oldfield, The Hon ble Mr Francis Du Pre I.C.S.	Puisne Judge
Spencer The Hon ble Mr Charles Gordon I.C.S.	Ditto
Trotter The Hon ble Mr Victor Murray Coult	Ditto
Abdur Rahim The Hon ble Mr. M.A. Bar-at-law	Ditto
Phillips The Hon ble Mr W. W.	Ditto
Srinivasa Ayyangar, The Hon ble Mr A.	Ditto
Sadasiva Ayyar The Hon ble Mr F. Diwan Bahadur	Ditto
Ayling, The Hon ble Mr William Book I.C.S.	Ditto
Bakewell, The Hon ble Mr James Herbert LL.B. Bar at-Law	Ditto Temporary (Additional)
Kumaraswami Shastri The Hon ble Mr C. V. Diwan Bahadur	Ditto (Officiating)
Seshagiri Ayyar, The Hon Mr T. V., B.A. B.L., Dewan Bahadur	Offg Judge Temporary (Additional)
Coxbet, Frederick Hugh Mackenzie Bar at-Law	Advocate General
David, William Ontario	Government Solicitor
Maple Charles F., Bar at Law	Government Pleader and Public Prosecutor
Adam, John M.A. Bar at Law	Crown Prosecutor
Grant, P. B. Bar at-Law	Law Reporter
Odgers, The Hon ble Mr C. B. M.A. Bar at Law	Administrator-General and Official Trustee
Mackay Charles Gordon, K.A. I.C.S.	Registrar
The Hon ble Shifa ul Mulk Zyniaddin	Sheriff

Assam Judicial Department

Abdul Majid, The Hon Mr B.A. LL.B. Bar at Law	Judge and Superintendent and Remembrancer of Legal Affairs Shillong
Graham, John Fuller	Judge Assam Valley Districts Gauhati
Jedries, Francis Joseph	District and Sessions Judge, Sylhet and Cachar
Barada Prasad Bakshi B.A.	Officiating District and Sessions Judge Sylhet and Cachar

*** Bihar and Orissa Judicial Department.**

Sanderson Sir Lancelot	Chief Justice
Woodroffe The Hon ble Sir John George Kt M.A. B.C.L.	Puisne Judge
Mukharji, The Hon ble Sir Ashutosh, Kt C.S.I. M.A. D.L.	Ditto
Holmwood The Hon ble Mr Herbert I.C.S.	Ditto
Chetty The Hon ble Mr Charles William, Bar at Law	Ditto
Pletcher The Hon ble Mr Ernest Edward Bar at-Law	Ditto
Sharma-din The Hon ble Mr Satyid, Bar at-Law	Ditto
Coxe, The Hon ble Mr Henry Reynell Hoild I.C.S.	Ditto
Chatterji, The Hon ble Mr Dipanbar M.A., B.L.	Ditto

* Bihar and Orissa are to be separated from the Bengal Judicial Department in 1916 and to have their own High Court at Patna.

Bihar and Orissa Judicial Department—contd

Chatterji, The Hon ble Mr Nalhai Banjan M.A. B.L.	Palsame Judge.
Comon The Hon ble Mr William I.C.S.	Ditto
Richardson The Hon ble Mr Thomas William Bar at-Law	Ditto
Chandhuri The Hon Mr Ashutosh Bar at-Law	Ditto
Imam The Hon ble Mr Sayid Hassan Bar at Law	Ditto
Beauchroft The Hon Mr Charles Portin I.C.S.	Ditto
Chapman, The Hon Mr Edmund Pelly I.C.S.	Ditto (Temporary)
Mullick The Hon ble Mr Basanta Kumar I.C.S.	Ditto { Ditto }
Greaves The Hon ble Mr William Fwart Bar at Law	Ditto { Ditto }
Walmsley The Hon ble Mr Hugh I.C.S.	Ditto (Ditto) Additional
Kerrick The Hon ble Mr George Harry Blair K.C. LL.D. Bar at Law	Advocate General
Mitra The Hon Mr Bhoed Chandra Bar at Law	Standing Counsel
Kesteven The Hon ble Mr Charles Henry	Government Solicitor
Adami The Hon ble Mr L.C.	Superintendent and Remembrancer of Legal Affairs
Nalini Mohan Chatterji Bar at Law	Master and Official Referee
Heck James Herbert	Registrar Keeper of Records Accountant-General and Sealer etc Original Jurisdiction Clerk of the Crown
Bonnand William Augustus Bar at Law	Official Trustee and Official Assignee
Crey Charles Edward Bar at Law	Official Receiver sub pro tem
Bonnerjee K. K. Shelly Bar at Law	

Burma Judicial Department

Fox The Hon ble Sir Charles Edmund Kt Bar at Law	Chief Judge Chet Court Lower Burma.
Hartnoll The Hon ble Sir Henry Sulivar Kt I.C.S.	Judge
Ormond, The Hon ble Mr Ernest William B.A., Bar at Law	Judge (On leave)
Twomey, The Hon ble Mr Daniel Harold Ryan I.C.S., Bar at Law	Judge (On leave)
Robinson The Hon ble Mr Sydney Maddock Bar at Law	Judge (On leave)
Parlett, The Hon ble Mr Leonard Montague	Judge (Officiating)
Saunders Leslie Harry I.C.S.	Judicial Commissioner Upper Burma.
Young, The Hon ble Mr Charles Phillip Radford B.A. Bar at Law	Government Advocate.
Sen, Purna Chandra Bar at Law	Official Assignee and Receiver Rangoon
Christopher S. A. Bar at Law	Government Prosecutor Rangoon
Darwood, Arthur John Bar at Law	Government Prosecutor, Moulmein.
Brown Ralph Roberts B.A. I.C.S.	Registrar Chief Court, Lower Burma.
Miller Edward	Registrar Court of Judicial Commissioner Upper Burma

Central Provinces, Judicial Department.

Drake Brookman Sir H. V. M.A. LL.M. Bar at-Law I.C.S.	Judicial Commissioner
Batten, J. K. I.C.S.	First Additional Judicial Commissioner.
Stanyon, H. J., C.I.M., V.D. A.D.C. Bar at-Law	Second Additional Judicial Commissioner
Boughton, H. J., I.C.S.	Registrar
Parande K. G.	Deputy Registrar

N W Frontier Province Judicial Department

Barton W P C.I.E. I.C.S.
Muhammad Yakub Mufti

Judicial Commissioner
Registrar

Punjab Judicial Department

Johnstone The Hon ble Mr Donald Campbell, I.C.S. Chief Judge
Battigan, The Hon ble Mr Henry Adolphus Byden B.A. Judge
Bar at Law

Shah Din The Hon ble Mian Muhammad Bar at Law Judge

Smith The Hon ble Mr H. Scott I.C.S. Judge

Chevis The Hon ble Mr William I.C.S. Judge
Shadi Lal The Hon ble Mr Rai Bahadur Bar at Law First Temporary Additional (Judge)

Le Rossignol The Hon Mr Walter Aubin, I.C.S. Second Temporary Additional (Judge)

Gracey S.W. B.A. I.C.S. Legal Remembrancer

Petman Charles Bevan B.A. Bar at Law Government Advocate
Campbell, Archibald, B.A. I.C.S. Registrar

United Provinces, Judicial Department

Richards, The Hon ble Sir Henry George Kt Bar at Chief Justice
Law, E.C.

Knox, The Hon ble Sir George Edward Kt LL.D. I.C.S. Pulse Judge

Banarji, The Hon ble Sir Pramada Charan Kt., B.A. B.L. Ditto

Piggott, The Hon ble Mr Theodore Caro I.C.S. Ditto

Tudball, The Hon ble Mr William I.C.S. Ditto

Chamier The Hon'ble Mr Edward Maynard Des Ditto
Champs Bar at Law

Rasik, The Hon ble Mr Muhammad Bar at Law Ditto

Murray George Ramsay I.C.S. Registrar

Ashworth, The Hon'ble Mr E. H. I.C.S. Legal Remembrancer
Ryves, Alfred Edward, B.A. Bar at Law Government Advocate

Porter Wilfred King, Bar at Law Law Reporter and Secretary Legislative
Council

Lalit Mohan Banarji Government Pleader

COURT OF JUDICIAL COMMISSIONER OF OUDH—LUCKNOW

Lindsay Benjamin, I.C.S.
Stuart, Louis, I.C.S.
Rai Kanhaiya Lal, Bahadur

Judicial Commissioner
First Additional Judicial Commissioner
Second Additional Judicial Commissioner

Cordeux, C. H., Bar at Law
Nagendra Nath Ghosal

Temporary Registrar
Government Pleader

NUMBER AND VALUE OF CIVIL SUITS INSTITUTED

Administrations	Number of Suits Instituted						Number of Suits the value of which cannot be estimated in money	Total Number of Suits Instituted	Total Value of Suits
	Value not exceeding Rs 10	Value Rs 10 to Rs 50	Value Rs 50 to Rs 100	Value Rs 100 to Rs 500	Value Rs 500 to Rs 1,000	Value Rs 1,000 to Rs 5,000			
Bengal	96 860	290 531	122 147	122 182	10 562	5 947	1 085	660 215	6 267 083
Bihar and Orissa	37 464	81 088	31 292	12 834	3 781	3 072	773	190 608	2 772 421
United Provinces	16 101	75 074	40 276	43 322	6 063	5 577	1 155	196 691	3 887 740
Punjab (including Delhi)	28 478	75 230	49 924	49 193	7 206	3 826	492	207 107	2 435 714
North West Frontier Province	1 860	10 586	5 595	5 170	667	402	61	26 184	276 824
Burma	4 533	28 409	16 330	20 187	2 144	1 669	193	12 768	1 364 671
Central Provinces and Berar	8 702	38 501	21 863	24 123	3 294	2 316	276	100 090	1 211 604
Assam	4 574	15 408	8 204	7 966	147	223	182	40 071	276 589
Ajmer Merwara	1 261	1 456	559	980	116	12	5	2 651	16 264
Coorg	221	1 456	559	980	116	12	5	2 651	16 264
Madras	93 125	194 080	70 849	94 142	10 171	8 413	1 021	460 040	5 431 968
Bombay	11 570	40 536	27 382	34 576	5 639	4 025	865	116 082	2 775 780
British Baluchistan	826	1 950	57	54	81	19	7	4 076	54 140
TOTAL 1912	901 794	867 790	383 502	425 552	50 300	38 037	6 164	7 568 * 2 058 407	29 738 601
TOTALS	1 011 299 542	558 388	387 657	408 486	47 408	31 523	5 956	23 043 380	27 360 586
	1 180 201 896	870 145	405 069	440 101	76 628	37 732	6 786	23 130 691	32 340 398
	1 308 288 827	915 248	376 637	390 509	43 490	5 291	7 247	21 090 064	23 068 006
	1 967 300 857	809 468	375 739	344 351	40 707	23 186	6 822	21 587 896	23 453 046
	1 006 311 039	614 674	38 440	378 910	39 863	25 014	4 497	21 880 108	22 370 188
	1 905 216 370	787 784	314 422	314 043	37 182	23 315	4 124	1 804 445	24 406 879
	1 904 210 670	786 459	323 978	314 511	35 422	21 996	5 283	1 817 846	22 453 189
	1 903 807 035	781 844	312 675	301 179	34 149	20 742	8 643	1 767 956	25 686 677

* Details not given of 42 Bombay suits in 1906 66 Madras suits in 1906, 96 in 1907 74 in 1908, 71 in 1909, 878 in 1910 71 in 1911, and 64 suits in 1912 and 370 Bengal suits in 1909

THE INDIAN POLICE

The Indian Government employ 102,701 men in the ranks of the Indian Police who are controlled by 749 Gazetted European Officers. In large cities, the Force is concentrated and under direct European control. In the rest of the country the men are scattered throughout each District and located at various Outposts and Police Stations. The smallest unit for administrative purposes is the Outpost which generally consists of 3 or 4 Constables under the control of a Head Constable. Outpost Police are mainly trained to patrol roads and villages and to

report all matters of local interest to their superior, the Sub-Inspector. They have no powers to investigate offences and are a survival of the period when the country was in a disturbed state and small bodies of Police were required to keep open communications and afford protection against the raids of dacoits. It is an open question whether they are now of much use. Each Outpost is under a Police Station which is controlled by an officer known as a Sub-Inspector.

Distribution of Police—The area of a Police Station varies according to local conditions. The latest figures available are—

	Average area per Police Station	Average number of Regular Civil Police per 10,000 of Population
	Square miles	
Bengal *	138	4.4
Eastern Bengal and Assam	358	3.4
United Provinces	127	7.6
Punjab	210	9.6
North-West Frontier Province	179	18.5
Central Provinces and Berar	275	8.6
Burma *	500	13.1
Madras	106	7.8
Bombay *	290	12.9

* Excluding the towns of Calcutta, Bombay and Rangoon. The figures include the Railway police but not Military police.

Organisation of Police

The Police Station Officer (the Sub-Inspector) is responsible for the investigation of all cognisable crimes that is to say, all offences in which the Police can arrest without a warrant from a Magistrate, which occur within his jurisdiction. He is also held responsible for the maintenance of the public peace and the prevention of crime. From the point of view of the Indian Ryot he is the most important Police Officer in the District and may rightly be considered the backbone of the Force.

Superior to the Sub-Inspector is the Inspector who holds charge of a Circle containing 4 or 5 Police Stations. His duties are chiefly those of supervision and inspection. He does not ordinarily interfere in the investigation of crime unless the conduct of his subordinates renders this necessary.

The Inspector is usually a selected and experienced Sub-Inspector. Each District contains 3 or 4 Circles, and in the case of large

Districts, is divided into 2 Sub-divisions—one of which is given to an Assistant Superintendent of Police, a European gazetted Officer. The Police Force in each District is controlled by a District Superintendent of Police, who is responsible to the District Magistrate (Collector or Deputy Commissioner) for the detection and prevention of crime and for the maintenance of the public peace and to his Deputy Inspector-General and Inspector-General, for the internal administration of his Force. Eight or ten Districts form a Range administered by a Deputy Inspector-General, an officer selected from the ranks of the Superintendents. At the head of the Police of each Province is the Inspector-General who is responsible to the Local Government for the administration of the Provincial Police.

Separate but recruited from the District Force is the Criminal Investigation Department which is under the control of a specially selected European Officer of the rank and

standing of a Deputy Inspector General. The Criminal Investigation Department, usually called the C I D, is mainly concerned with political inquiries, sedition cases and crimes with ramifications over more than one District or which are considered too important to leave in the hands of the District Police. It is a small force of Sub Inspectors and Inspectors who have shown their ability and intelligence when working in the mofussil and forms in each Province a local Scotland Yard.

The larger Cities of Calcutta, Bombay and Madras have their own Police Force independent of the Inspector-General of Police and under the control of a Commissioner and 2 or more Deputies. The latter are selected Superintendents who have learnt their work in the mofussil. For Police purposes the City area is divided into divisions under the control of non-gazetted European officers, styled Superintendents but not to be confused with District Superintendents. Each division contains a number of Police Stations controlled as in the mofussil by Inspectors and Sub Inspectors. A comparatively small number of Europeans are recruited in cities from British regiments for the control of traffic. They have no powers of investigation.

The Supreme Government at Delhi and Simla keeps in touch with the Provincial Police by means of the Director of Criminal Intelligence and his staff. The latter do not interfere in the Local Administration and are mainly concerned with the publication of information regarding international criminals, inter-provincial crime and political inquiries in which the Supreme Government is interested.

Recruitment.—The constable is enlisted locally. Certain castes are excluded from service and the formation of cliques by filling up the Force from any particular caste or locality is forbidden. In some Provinces a fixed percentage of foreigners must be enlisted. Recruits must produce certificates of good character and pass a medical test. They must be above certain standards of physical development. The constable rises by merit to the rank of Head Constable and prior to the Police Commission could rise to the highest Indian subordinate appointments. Since 1906 his chances of promotion have been greatly curtailed; this has certainly lowered the standard coming forward for service in the Force in the lower ranks.

The Sub Inspector until 1906 was a selected Head Constable, but Lord Curzon's Commission laid down that Sub-Inspectors should be recruited direct from a socially better class of Indians. In most Provinces, eighty per cent. of the Sub-Inspectors are selected by nomination, trained for a year or 18 months at a Central Police School, and, after examination, appointed direct to Police Stations to learn their work by actual experience. It is too early to judge this system by results, but it has no doubt great disadvantages and undetected crime in India is increasing rapidly.

An Inspector is generally a selected Sub-Inspector. Direct nomination is the exception, not the rule.

The Deputy Superintendent a new class of officer instituted on the recommendation of the Commission is an Indian gazetted officer and is the native Assistant to the District Superintendent of Police. He is either selected by special promotion from the ranks of the Inspectors or nominated direct after a course at the Central Police School.

Prior to 1893 the gazetted ranks of the Force were filled either by nomination or by regimental officers seconded from the Army for certain periods. In 1893, this system was abandoned and Assistant Superintendents were recruited by examination in London. On arrival in India they were placed on probation until they had passed their examinations in the vernacular in law and in riding and drill. The establishment of Police Training Schools in 1906 has done much to improve the training of the Police. Probationer and selection by examination has given Government a better educated officer, but open competition does not reveal the best administrators and should be tempered as in the Navy by selection.

Pay.—The monthly salaries drawn by each grade of Police Officer are as follows:—

A constable draws from	Rs. 10 to 12.
A Head Constable draws	15 to 20.
A Sub Inspector from	50 to 100.
An Inspector from	150 to 250.
Deputy Superintendents from	250 to 500.
Assistants from	300 to 500.
District Superintendents of Police from	Rs. 700 to 1,200.
Deputy Inspectors General from	Rs. 1,500 to 1,800.
Inspectors General from	Rs. 2,000 to 3,000.

The appointments of Commissioner of Police, Calcutta, Bombay and Madras and all Provincial Inspectors-General, may be held by a member of the Indian Civil Service. If no Police Officer is found suitable for such appointments.

Internal Administration.—The District Force is divided into 2 Branches—Armed and Unarmed. As the duties of the armed branch consist of guarding Treasuries, escorting treasure and prisoners and operating against dangerous gangs of dacoits, they are maintained and controlled on a military basis. They are armed and drilled and taught to shoot after military methods. The unarmed branch are called upon to collect fines, magisterially inflict, serve summonses and warrants, control traffic, destroy stray dogs, extinguish fires, enquire into accidents and non-cognisable offences. The lower grades are clothed and housed by Government without expense to the individual. The leave rules are fairly liberal, but every officer, European or Native, must serve for 30 years before he is entitled to any pension unless he can obtain a medical certificate invaliding him from the service. This period of service in an Eastern climate is generally admitted to be too long and the efficiency of the Force would be considerably improved if Government allowed both the officers and men to retire after a shorter period of service.

Statistics of Police Work.

The undecidability of attaching undue importance to statistical results as a test of the merits of police work was a point upon which considerable stress was laid by the Indian Police Commission who referred to the evils likely to result from the prevalence among subordinate officers of an impression that the advancement of an officer would depend upon his being able to show a high ratio of convictions, both to cases and to persons arrested, and a low ratio of crime. The objection applies more particularly to the use of statistics for small areas, but they cannot properly be used as a basis of comparison even for larger areas without taking into account the differences in the conditions under which the police work and it may be added, they can at the best indicate only very imperfectly the degree of success with which the police carry out that important branch of their duties, which consists in the prevention of crime. These considerations have been emphasised in recent orders of the Government of India. Subject to these observations the figures below may be given as some indication of the volume of work falling upon the police and of the wide differences between the conditions and the statistical results in different provinces —

Administration	Number of Offences reported	Number of Persons under trial	Persons whose cases were disposed of				Persons remaining under trial at the end of the year	
			Discharged or Acquitted	Convicted	Committed or Referred	Died Escaped or Transferred to another Province		
Bengal	3,309	288,143	93,576	192,246	2,565	140	9,606	
Bihar and Orissa	112,911	107,659	50,609	50,920	1,615	91	4,411	
United Provinces	222,817	116,366	187,003	118,444	4,791	200	9,920	
Punjab(IncludingDelhi)	231,251	310,121	218,374	73,742	1,771	241	14,255	
North West Frontier Province	25,331	18,678	22,307	14,498	495	17	871	
Burma	108,440	188,941	70,416	100,083	2,144	2,139	7,969	
Central Provinces and Berar	39,820	56,680	32,191	19,810	1,499	51	3,927	
Assam	40,862	33,754	16,265	14,784	484	35	2,183	
Ajmer Merwara	10,698	12,969	4,292	7,968		94	626	
Coorg	2,489	3,037	1,741	1,038	11	7	240	
Madras	353,167	402,155	236,905	246,543	4,178	141	14,818	
Bombay	172,103	203,315	112,842	126,507	2,127	428	10,862	
British Baluchistan	786	10,796	6,403	5,068		133	1,190	
TOTAL 1912	1,859,254	2,132,813	1,063,667	977,267	21,600	4,313	75,785	
TOTALS	1911	1,502,995	1,060,619	966,781	807,786	21,171	1,900	70,802
	1910	1,447,732	1,884,931	922,479	872,296	21,029	4,439	64,677
	1909	1,421,350	1,806,279	914,600	854,668	22,174	3,349	61,502
	1908	1,412,617	1,844,207	897,462	860,066	24,535	3,625	58,496
	1907	1,411,653	1,816,827	880,708	831,097	21,290	3,505	60,223
	1906	1,404,777	1,805,767	864,403	860,486	22,776	3,911	54,041
	1905	1,385,344	1,767,134	822,185	862,396	21,263	6,459	53,825
	1904	1,370,002	1,758,411	830,019	843,369	20,144	7,346	57,653
1903	1,352,982	1,709,638	781,347	827,810	19,840	5,355	56,696	

PRINCIPAL POLICE OFFICER: P9

Administrations.	Offences against State and Public Tranquillity		Murder		Other serious Offences against the Person		Dacoity		Cattle Theft		Ordinary Theft		House-trespass and Housebreaking with intent to commit Offence.	
	Reported	Convicted	Reported	Convicted	Reported	Convicted	Reported	Convicted	Reported	Convicted	Reported	Convicted	Reported	Convicted
Bengal	2,743	986	480	39	6,668	1,900	243	19	1,215	182	2,451	4,023	89 38	2,377
Madras	99	40	10	4	739	181	6		4,754	33	1,551	1,172	291	291
Coorg	309	378	237	48	2,612	686	184	20	1,271	184	17,178	3,382	89,450	1,451
United Provinces	1,851	765	202	244	9,281	2,541	373	68	1,271	926	11,448	5,711	62,645	2,883
Punjab (including Delhi)	1,085	550	684	166	7,348	2,051	111	4	1,967	1,003	11,807	1,114	23,735	2,452
North West Frontier Province	203	110	381	132	1,401	555	0	18	180	43	*1,337	*327	2,085	289
Bombay	661	363	621	187	10,035	2,811	234	80	5,147	1,472	13,640	5,504	8,384	2,659
Central Provinces and Berar	302	38	1	4	240	100	9		3		1,148	583	164	168
Central Provinces and Berar	428	105	208	87	2,441	767	46	5	875	350	12,743	1,642	8,678	1,215
Coorg	671	288	70	20	1,238	354	11	1	319	117	4,277	890	4,719	537
Madras	6	5	4	44	44	11	5		11	5	176	71	21	4
Madras	1,742	591	698	118	5,515	1,700	608	83	4,846	1,295	21,904	4,799	18,906	2,453
Bombay	1,381	840	512	116	4,189	1,240	236	42	3,781	1,028	15,647	4,857	10,958	1,886
North West Frontier Province	52	6	47	11	521	171	1				4,968	2,892	1,148	407
North West Frontier Province	12,414	4,716	4,430	1,808	62,387	14,765	2,512	428	37,254	7,171	178,031	38,850	109,430	20,175
TOTAL, 1912	11,873	4,456	4,188	1,281	40,750	14,128	2,454	987	95,982	9,789	186,804	37,501	205,374	50,065
1911	11,700	4,096	4,081	1,062	37,750	13,749	2,150	949	27,287	7,230	159,200	37,279	199,604	48,764
1909	11,919	4,264	4,034	1,038	41,980	18,947	2,524	459	27,933	7,710	169,451	40,878	207,283	51,002
1908	12,141	4,254	4,003	1,006	43,889	18,678	2,964	659	29,456	8,927	184,246	44,445	236,250	54,072
TOTALS	12,886	4,600	4,390	1,100	42,993	12,505	2,380	428	27,609	7,402	178,908	41,173	212,290	51,079
1906	12,813	4,458	4,146	1,045	42,988	12,020	2,085	419	27,577	7,881	184,915	43,112	203,701	54,854
1905	12,819	4,619	4,348	1,001	49,999	12,970	2,276	454	25,847	7,083	174,091	40,401	194,233	51,760
1904	12,839	4,619	4,348	1,001	49,999	12,970	2,276	370	25,847	7,083	183,888	36,528	188,098	50,037
1903	15,688	4,403	8,240	1,103	47,805	12,576	2,539	443	29,383	6,697	139,394	35,544	136,805	15

* Including some cases of cattle theft

JAILS.

Jail administration in India is regulated generally by the Prisons Act of 1894 and by rules issued under it by the Government of India and the local governments. The punishments authorised by the Indian Penal Code for convicted offenders include transportation, penal servitude, rigorous imprisonment (which may include short periods of solitary confinement), and simple imprisonment. Accommodation has also to be provided in the jails for civil and under trial prisoners.

The origin of all jail improvements in India in recent years was the Jail Commission of 1889. The report of the Commission which consisted of only two members both official, serving under the Government of India, is extremely long and reviews the whole question of jail organization and administration in the minutest detail. In most matters the Commission's recommendations have been accepted and adopted by Local Government, but in various matters, mainly of a minor character, their proposals have either been rejected *ad vitæ* as unsuited to local conditions abandoned as unworkable after careful experiment or accepted in principle but postponed for the present as impossible.

The most important of all the recommendations of the Commission, the one that ought in fact be described as the corner stone of their report, is that there should be in each Province three classes of jails: in the first place, large central jails for convicts sentenced to more than one year's imprisonment; secondly, district jails at the head-quarters of districts; and thirdly subsidiary jails and 'look-outs' for under-trial prisoners and convicts sentenced to short terms of imprisonment. The jail department in each province is under the control of an Inspector-General, who is generally an officer of the Indian Medical Service with jail experience and the Superintendent of certain jails are usually recruited from the same service. The district jail is under the charge of the civil surgeon and is frequently inspected by the district magistrate. The staff under the Superintendent includes in large central jails, a Deputy Superintendent to supervise the jail manufacture and in all central and district jails one or more subordinate medical officers. The executive staff consists of jailors and warders, and convict petty officers are employed in all central and district jails, the prospect of promotion to one of these posts being a strong inducement to good behaviour. A Press Note issued by the Bombay Government in October 1916 says:—The cadre and emoluments of all ranks from Warder to Superintendent have been repeatedly revised and altered in recent years. But the Department is not at all attractive in its lower grades. The two weak spots in the jail administration at the moment are the insufficiency of Central Prisons and the difficulty of obtaining good and sufficient warders.

Employment of Prisoners.—The work on which convicts are employed is mostly carried on within the jail walls, but extra-mural employment on a large scale is sometimes allowed as, for example, when a large

number of convicts were employed in excavating the Jhelum Canal in the Punjab. Within the walls prisoners are employed on jail services and repairs, and in workshops. The main principle laid down with regard to jail manufactures is that the work must be penal and industrial. The industries are on a large scale multifarious employment being condemned while care is taken that the jail shall not compete with local traders. As far as possible industries are adapted to the requirements of the consuming public departments and printing, tent making and the manufacture of clothing are among the commonest employments. Schooling is confined to juveniles, the experiment of teaching adults has been tried but literary instruction is unsuitable for the class of persons who fill an Indian jail.

The conduct of convicts in jail is generally good and the number of disciplinary characters among them is small. Failure to perform the allotted task is by far the most common offence. In a large majority of cases the punishment inflicted is one of those classed as 'minor'. Among the major punishments flogging takes the first place. Corporal punishment is inflicted in relatively few cases and the number is steadily falling. Punishments were revised as the result of the Commission of 1889. Two notable punishments then abolished were shaving the heads of female prisoners and the stock, the latter which was apparently much practised in Bombay was described by the Commission as inflicting exquisite torture. Punishments are now scheduled and graded into major and minor. The most difficult of all jail problems is the total insubordination of order among the prisoners for which purpose paid warders and convict warders are employed. With this is bound up the question of a special class of well behaved prisoners which was tried from 1913 onwards in the Thana Jail.

Juvenile Prisoners.—As regards youthful offenders—i.e. those below the age of 15—the law provides alternatives to imprisonment and it is strictly enjoined that boys shall not be sent to jail when they can be dealt with otherwise. The alternatives are detention in a reformatory school for a period of from three to seven years, but not beyond the age of 18, discharge after admonition, delivery to the parent or guardian on the latter executing a bond to be responsible for the good behaviour of the culprit, and whipping by way of school discipline.

The question of the treatment of young adult prisoners has in recent years received much attention. Under the Prisons Act, prisoners below the age of 18 must be kept separate from older prisoners, but the recognition of the principle that an ordinary jail is not a fitting place for adolescents (other than youthful habituals) who are over 15, and therefore in eligible for admission to the reformatory school, has led Local Governments to consider schemes for going beyond this by treating young adults on the lines followed at Borstal and considerable progress has been made in this direction. In 1905 a special class for selected juveniles and young adults was established at the Dharwar

jail in Bombay, in 1908 a special juvenile jail was opened at Alipore in Bengal. In 1909 the Madkila jail in Burma and the Tanjore jail in Madras were set aside for adolescents, and a new jail for juvenile and juvenile adult convicts was opened at Bareilly in the United Provinces and in 1910 it was decided to concentrate adolescents in the Punjab at the Lahore District jail which is now worked on Borstal lines. Other measures had previously been taken in some cases a special reformatory system for juvenile adults had for example, been in force in two central jails in the Punjab since the early years of the decade, and Borstal enclosures had been established in some jails in Bengal. But the public is slow to appreciate that it has a duty towards prisoners and but little progress has been made in the formation of Prisoners Aid Societies except by the Salvation Army.

Reformatory Schools—These schools have been administered since 1899 by the Education department and the authorities are directed to improve the industrial education of the inmates to help the boys to obtain employment on leaving school and as far as possible to keep a watch on their careers.

Transportation—Transportation is an old punishment of the British Indian criminal law and a number of places were formerly appointed for the reception of Indian transported convicts. The only penal settlement at the present time is Port Blair in the Andaman Islands. Under existing rules convicts sentenced to transportation for life or for a term of years of which six have still to run may be transported to the Andamans subject to their being physically fit and to some other conditions in the case of women. The sanctioned scheme contemplates five stages in the life of a male transported convict, the first six months being passed in a cellular jail, the next eighteen months in association in a jail similar to those of the Indian mainland and the following three years as a convict of the third class kept to hard gang labour by day and confined in barracks by

night. Having thus completed five years, a convict may be promoted to the second class, in which he is eligible for employment in the various branches of the Government services or in the capacity of servants to a private resident. After five years so spent a well behaved convict enters the first class in which he labour under more favourable conditions or is granted a ticket enabling him to support himself with a plot of land. He may now send for his family or marry a female convict. The three later stages of this discipline have been in force for many years and the first for some time, the cellular jail having been finished in 1905 but the associated jail for the second stage has not yet been built. Females are kept at industrial work under strict jail discipline for three years for the next two years they are subjected to a lighter discipline and at the end of five years they may support themselves or marry. Promotion from class to class depends on good conduct. The convicts are employed in jail service in the erection and repair of jail buildings in the commissariat, medical, marine and forest departments in tea-gardens and at other agricultural work and in various jail manufactures. Ordinary male convicts sentenced to transportation for life are released, if they have behaved well after twenty years, and persons convicted of dacoity and other organised crime after twenty-five. Thugs and professional prisoners are never released. Well-behaved female convicts are released after fifteen years. The release is sometimes absolute and sometimes, especially in the case of dacoits subject to conditions e.g. in regard to residence. In some cases released convicts prefer to remain in the settlement as free persons. The settlement is administered by a superintendent aided by a staff of European assistants and Indian subordinates. The convict population of Port Blair amounted in 1912 to 11,235 consisting of 10,633 males and 602 females, of whom 1,566 and 272 respectively mostly occupied as cultivators were self-supporters. The total population of the settlement was 15,613.

The variations of the jail population in the following table—

in British India during five years are shown

	1907	1908	1909	1910	1911
1. Jail population on 1st January	101,908	91,576	102,391	104,015	104,413
Admissions during the year	102,304	43,420	470,31	43,246	493,692
Aggregate	91,216	34,096	573,501	381,268	588,005
Discharged during the year from all causes	458,617	162,736	481,622	480,268	493,999
Jail population on 1st December	105,339	101,910	91,887	102,990	104,006
Convict population on 1st January	85,287	79,668	91,505	92,880	92,180
Admissions during the year	166,551	159,424	162,390	158,519	160,999
Aggregate	251,838	239,092	253,895	251,399	253,179
Released during the year	154,494	147,292	151,936	158,338	157,715
Transported beyond seas	1,566	1,382	1,128	1,106	828
Casualties &c	2,053	2,084	2,222	2,304	2,705
Convict population on 1st December	92,918	89,237	79,668	91,505	92,879

The daily average number of prisoners, which had steadily decreased since 1908, rose slightly in 1912 to nearly the figure of 1911. The fall in 1912 was however, largely attributable to the release of convicts and civil prisoners on the occasion of the Delhi Durbar. The increase in 1912 was distributed among all provinces except the United Provinces of Agra and Oudh and Coorg, in which the figures continued to show decreases.

More than one half of the total number of convicts received in jails during the year came from the classes engaged in agriculture and cattle tending, over 132,000 out of 160,000 are returned as illiterate.

The percentage of previously convicted prisoners was 17.29 as against 16.45 in 1912, while the number of youthful offenders fell from 726 to 626. The following table shows the nature and length of sentences of convicts admitted to jails in 1912 and 1913 —

Nature and Length of Sentence		1913	1912
Not exceeding one month		43,300	44,080
Above one month and not exceeding six months		61,540	62,026
six months	one year	29,246	27,683
one year	five years	21,394	20,531
" five years	ten	2,280	2,338
Exceeding ten years		712	1,715
Transportation beyond seas —			
(a) for life		1,148	1,050
(b) for a term		739	724
Sentenced to death		870	761

Executive and Judicial Functions.

Throughout the history of political agitation in India, few matters have received more consistent attention than the question of the separation of the Judicial and the Executive functions. It has been one of the principal planks in the political platform of the National Congress since its inception in 1885 and has received the support of men of every shade of political opinion from the most violent Extremist to the most conciliatory Moderate.

The question arises from the fact that the Indian Administration is based on the Oriental view that all power should be concentrated in the hands of a single official. Thus the District Magistrate is the chief revenue authority in the District, he controls local boards and municipalities and directs the District Police and in fine almost every department within the District is to a large extent under his influence. Sessions trials and Civil Justice fall within the province of the District Judge but there remains under the District Magistrate's orders a body of subordinate Magistrates who dispose of simple criminal cases and commit graver ones to the Sessions.

The opponents of the existing system are apt to rely largely on *ad captandum* phrases like the maintenance of judicial independence and a violation of the first principles of equity rather than to specify exactly what points they really consider objectionable. It appears, however, that there are two main items in the District Magistrate's position to which exception is taken one is that he is executive head of the District with direct control of the police has the power of trying cases; the other is that the subordinate Magistrates, who try the great majority of cases are directly under him receive his orders, and rely on his good opinion for their promotion.

As regards the first point, the number of cases actually tried by the District Magistrate is exceedingly small. Sir Charles Elliott defending the existing system in 1896 said—

There are many Districts in Bengal in which he does not try 12 cases a year. Since 1896 miscellaneous work has increased so much that even this small number has been greatly reduced. In fact in Bombay to-day the majority of District Magistrates probably go through the year without trying a single case, and the difference would hardly be noticeable if the District Magistrate altogether lost his powers to try cases. The power is however sufficiently useful on occasions to outweigh the fear of harm arising from any abuse of that power on the rare occasions when it is used.

The more important item of the District Magistrate's power that of control over his subordinate Magistrates, is attacked on the ground that he interferes with their judicial independence. It is here assumed that control and interference are one and the same thing. If the District Magistrate said to his subordinate "I consider this man guilty, and I expect you to convict him, there would be very real cause for complaint. But interference of this type does not occur and is not alleged. It has been said that inspection is to the District Officer the very breath of his nostrils, and it is very largely to his continual inquisitiveness into the work of his subordinates,

that the relatively high standard of justice attained by the subordinate magistracy in India is due. The points towards which his inquiries are most frequently directed are matters like want of sense of proportion in sentences, delays and irregularities in local bar priority in judgments and so forth. If control of the Magistracy were exercised only by the District Judge who is practically tied to his bench, this supervision would be impossible and the only check on the subordinate Magistrates would be occasional strictures passed by the Judge in appeal or on revision.

The opponents of the existing system would substitute for the present Magistracy trained lawyers, whose sole work would be that of stipendiary magistrates. There is no reason to suppose that the trained lawyer would be any less liable to the faults mentioned above. Nor is the Magistracy of to-day altogether untrained. The criminal law of India is to a very large extent independent of customary and case law and is based on comparatively simple codes. Every official Magistrate is examined in these codes and with a few years' experience he is often a match in argument for all but the best of the local *cakils*. It is not, therefore, apparent that any gain would result from this change while the increased charge to the public revenues would be enormous.

In 1898 the movement against the existing system culminated in a memorial on the proposed separation of the Judicial and Executive duties in India addressed to the Secretary of State and signed by ten Indian gentlemen—mostly high judicial authorities. This memorial sets forth eight objections to the existing system and it may perhaps be instructive to examine these seriatim, and to indicate with respect to each point the grounds on which an apology for the present system may be based.—

(1) That the combination of judicial with executive duties in the same officer violates the first principles of equity.

If the same officer actually brought an offender to justice, and then tried him personally the above theoretical objection might have considerable weight. In practice, however, as has been shown above, this does not occur; and the combination of functions in the District Officer is governed in such a way by criminal codes that the interests of accused persons are effectually safeguarded.

(2) That while a judicial authority ought to be thoroughly impartial, and approach the consideration of any case without previous knowledge of the facts, an Executive Officer does not adequately discharge his duties, unless his ears are open to all reports and information which he can in any degree employ for the benefit of the District.

In reply to this it may be repeated that the District Magistrate in fact tries very few cases at all and it may be noted, moreover, that the law very largely restricts the possibility of a magistrate trying a case of which he has any previous knowledge. Further it is surely to the public advantage that the police should be controlled by the District Magistrate, whose sole aim is or should be justice,

rather than by a police officer whose presence and might weigh hardly on the innocent suspect, and whose *esprit de corps* might shield a corrupt or unscrupulous subordinate from justice.

(3) That Executive Officers in India, being responsible for a large amount of miscellaneous business, have not time satisfactorily to do pieces of judicial work in addition.

By this it is presumably meant that the Executive Officer is at present overworked.

This is quite possible but the remedy would appear to lie rather in an increase of staff than in a re-distribution of functions which in itself could not remedy the defect.

(4) That, being keenly interested in carrying out particular measures, they are apt to be brought more or less into conflict with individuals and therefore that it is inexpedient that they should also be invested with judicial powers.

It is implied here that the District Officer may use his judicial powers to enforce the executive measures in which he is interested. It is not unknown for a District Magistrate to issue orders to subordinates regarding severe sentences in particular classes of cases and this may have reference to a particular executive policy (e.g. such orders might be issued with regard to smuggling cases in a District where the illicit traffic in cocaine was rife). But it by no means follows that any injustice will result from such a line of action. Moreover if this kind of interference by the District Magistrate were stopped, the only alternative left to Government in cases where they wished specially to repress a particular type of crime would be to amend the criminal codes by raising the minimum penalty for the offence thereby depriving Magistrates of all discretion in the matter.

(5) That under the existing system Collector Magistrates do in fact neglect judicial for executive work.

It is not at first sight obvious how this can be urged as an objection to the fact that they do both types of work. It is true a already stated, that the District Magistrate tries very few original cases but it by no means follows that what judicial work he does, is done negligently.

(6) That appeals from revenue assessments are apt to be hasty when they are heard by Revenue Officers.

It is intimated that all revenue matters should be decided on the operation of the weighty and complicated machinery of the Civil Courts. The idea of such a system in India, where three-quarters of the population are dependent on revenue-paying land conjures up such a nightmare of confusion that the imagination positively reels. The cost would be colossal. Nor is the objection really relevant. The Revenue Officer when hearing appeals from executive acts of his subordinates is still an Executive and not a Judicial Officer and what is here aimed at is a revision of the scheme of matters which the law allows to be dealt with executively rather than a separation of the two functions.

(7) That great inconvenience expense and sufferings are imposed upon citizens required to follow the camp of a Judicial Officer, who is the discharge of his executive duties, is making a tour of his District.

This is perhaps one of the least convincing

objections advanced against the existing system. In the first place a Magistrate in head quarters is likely to be at least as far from the homes of suitors, as he is in camp. The careful Magistrate, moreover, will arrange the hearing of cases at places which suit the convenience of parties as far as possible and considerable trouble and expense are often saved to parties in this way. If all judicial work were done by Magistrates who had no other work, the number of Magistrates would be much reduced, and it is obvious that three resident Magistrates in a District must be much less accessible than a dozen or more who are continually moving about among the agricultural population. The only people who really are inconvenienced by the touring of a Magistrate are the pleaders.

(8) That the existing system not only involves all whom it concerns in hardships and inconveniences but also by associating the judicial tribunal with the work of the Police and of detectives and by diminishing the safeguards afforded by the rules of evidence, produces actual miscarriages of justice and creates though justice be done opposite feelings of suspicion distrust and discontent which are greatly to be deplored.

It is difficult to answer so general and indistinct an objection as this except by flat denial.

It may however be said that if miscarriages of justice due to this cause were at all frequent they could never have remained hid, and much more would be heard of them than is actually the case. In 1896 Mr. Manomohan Ghose, a Bengali lawyer of repute drew up a memorandum containing an account of 20 cases which had come to his notice in the course of a long experience at the bar and in which he alleged that injustice had resulted from the union in one officer of the judicial and executive functions. These instances were discussed by Sir Charles Lillott formerly Lieutenant Governor of Bengal in an article in the *Asiatic Quarterly Review* for October 1896 and his analysis robs this evidence of nearly the whole of its weight.

These then are the main objections which have been raised against the existing system. It may well be asked why if these objections are groundless has there been such unanimity in the opinions expressed by reformers. There are perhaps two reasons which are mainly responsible. Firstly it is beyond question that the proposed separation would everywhere weaken the Collector's position and thereby that of the British Raj and secondly those who desire the separation belong almost without exception to the class from which lawyers are most largely recruited. The separation would not merely provide innumerable stipendiary *titular* holders of which would have to be recruited from among the lawyers but an immense increase of litigation would also result.

There is no doubt that over the greater part of India the common people place a very real confidence in the Magistracy and this confidence is largely based on the wise and effective control exercised by District Magistrates over their subordinates. Nor is there any doubt that the common people would view with the most intense alarm any proposal which would render the magistracy independent of this control.

The Laws of 1915.

By

KATANLAL AND DEBRAJLAL

(Editors of the Bombay Law Reporter)

In introducing business at the very first meeting of the Legislative Council His Excellency the Viceroy said on the 14th January 1915:

It is the desire of the Government of India that so far as may be possible, the discussion of all controversial questions should be avoided during the continuance of the war. In regard to legislation not immediately necessary to meet the requirements of the present situation I and my Government consider that it would be most inadvisable at this juncture when the mind of all are concentrated on one object the protection of the Empire against a ruthless and powerful enemy to mind legislation which might provoke anything approaching controversy and friction. We may have different points of view or methods of administration and as to details of domestic legislation, but in a time of common danger we should be united front and I feel clearly our duty to shirk all minor difficulties and to stick and pursue but on one object the war, the conduct of the war against the enemies of the British Empire. Accordingly the Council deferred the consideration of a number of bills already introduced by the Council and postponed the introduction of other bills. The Council also introduced Amendment Bill to the bill for the further protection of Minorities Bill dealing with Contempt of Court and the Public Health Bill.

The Bills that passed into law during the year under review were more or less of a non controversial character.

1. The Emergency Legislation Continuance Act.—On the outbreak of the war the Viceroy promulgated Ordinances the number of which were conferred on him by s. 23 of the Indian Councils Act of 1861. These are (1) The Indian Naval and Military News (Emergency) Ordinance (2) The Imprisonment of Vessels Ordinance (3) The Foreigners Ordinance (4) The Indian Commerce Ordinance (5) The Imports into India Ordinance (6) The Commercial intercourse with Enemies Ordinance (7) The Foreigners (Amendment) Ordinance (8) The Foreigners (Further Amendment) Ordinance and (9) The Articles of Commerce Ordinance. These Ordinances have the same force as Acts passed by the Legislative Council but they are subject to the limitation that they are limited in point of time to a duration of six months from their first promulgation. It is enacted by this Act, therefore, that these Ordinances should be in force during the continuance of the present war and for a period of six months thereafter. But if it appears that any of the Ordinances has become inoperative by the course of events, the Governor General in Council may direct that any provision in any of the said Ordinances shall cease to be in force at any earlier date.

2. The Sir Sassoon Jacob David Barometry Act.—This Act was passed for settling securities of the nominal value of thirty lakhs of rupees and producing an annual income of about Rs. one lakh and twenty thousand so as to accompany and support the title and dignity of a Baronet conferred on Sir Sassoon Jacob David to hold to him and the heirs male of his body lawfully begotten. Section 2 constitutes the Board of Trustees which consists of the Accountant General of Bombay the Chief Secretary to the Government of Bombay and the Collector of Bombay. The third property which consists of the debentures of the Municipal Corporation of the City of Bombay of the nominal value of Rs. fourteen lakhs and bonds of the Trustees for the improvement of the City of Bombay of the nominal value of rupees sixteen lakhs is to vest in those trustees. (s. 3). The next section deal with the application of income during the majority of any person for the time being entitled to the said dignity (s. 4). Powers are given in the following two sections to mortgage settled property for jointure of widow (s. 5 & 6). The holder of the dignity for the time being has no right to charge or encumber the trust fund for any period beyond his natural life (s. 7). The settled property can be added to or subtracted the maximum amount of subjects lakhs or rupees (s. 8).

3. The Foreigners (Amendment) Act.—Under the Foreigners Act (III of 1864) before a person can be arrested and removed the local officer had to obtain an order from Government. There was however no provision by which a foreigner could be placed under restraint during the interval which must elapse before the order of removal could be obtained. The provisions of the Act were thus liable to be evaded. This defect in law has been sought to be made good in this Amending Act by the addition of s. 2A to the Act. The officer within the Command of Police in a President's Town or the District Magistrate in the mofussil, to report the case of any foreigner to the Local Government and at the same time to issue a warrant for the apprehension of such foreigner who may be detained in custody or released on bail pending the receipt of the orders of the Local Government.

4. The Defence of India (Criminal Law Amendment) Act.—The provisions of the Act like those of the Emergency Legislation Continuance Act are to remain in force during the continuance of the present war and for a period of six months thereafter that is to say until the excitement and disturbance of the general calm, which the state of war engenders, have had time to subside. It is drawn upon the lines of the Defence of the Realm Act passed in England at the outbreak of the War. The

operative part of the Act lies in its s. 2, which gives powers to the Governor-General in Council to make rules. Those rules are to be made—(a) to prevent persons communicating with the enemy (b) to secure the safety of His Majesty's forces and ships (c) to prevent the spread of false reports or reports likely to cause disaffection or to promote feelings of enmity and hatred between different classes of His Majesty's subjects (d) to empower any civil or military authority to secure the safety of railways, ports, telegraphs, post offices etc. (e) to enable any naval or military authority to take possession of any property moveable or immovable, for military purposes (f) to empower any civil or military authority to direct any person who is suspected of having acted in a manner prejudicial to the public safety not to enter or remain in any specified area or to remain in such an area (g) to regulate possession of explosives, arms, etc. (h) to prohibit any interference with the training or discipline of His Majesty's forces or to prevent any attempt to temper with their loyalty (i) to empower any civil or military authority to enter and search any place which is believed to be used for a purpose prejudicial to the public safety (j) to provide for the arrest of persons contravening rules made under the Act (k) to prescribe the duties of public servants as to preventing any contravention of the Rules and (l) to prevent assistance being given to the enemy or the successful prosecution of the war being endangered (s. 2). The next section empowers the Local Government to direct that any person accused of any offence made punishable by the Rules or of any offence punishable with death, transportation or imprisonment for a term which may extend to seven years or of criminal conspiracy to commit or of abetting or of attempting such offence shall be tried by Commissioners. Those shall be three in number. They shall be appointed by the Local Government. Two of them, are to be persons who have served as Sessions Judges for three years or are persons qualified to act as Judges of a High Court, or are advocates of a Chief Court or pleaders of ten years standing (s. 4). The procedure at trial is shortened by omission of any magisterial inquiry in committal proceedings, but the procedure prescribed by the Code of Criminal Procedure for the trial of warrant cases by Magistrates is made applicable (s. 5). The judgment delivered by the Commissioners is final and is not open to any appeal (s. 6). The provisions of the Indian Evidence Act are made applicable to the trials held under the Act with this exception that where the statement of any person has been recorded by a Magistrate and such person is dead, cannot be found or is incapable of giving evidence such statement may be admitted in evidence in any trial before the Commissioners (s. 6). The powers given by the Act are very wide indeed, but they are to remain in existence temporarily only to meet the special conditions following in the wake of war.

8. The Indian Paper Currency (Temporary Amendment) Act.—Early in the year the Government of India promulgated an Ordinance entitled the Indian Paper Currency Amendment Ordinance. Its object was to enable Govern-

ment to increase the investment of the Paper Currency Reserve from the maximum of rupees fourteen crores fixed by the Indian Currency Act of 1910 to the maximum of rupees twenty crores. This addition in the amount of Reserve was made with a view to providing for loans to the Presidency Banks should this be required for the assistance of trade in the conditions arising out of the war or alternatively to enable Government if necessary to obtain additional funds for general purposes. The provisions of the Ordinance are enacted into an Act which is to remain in force during the continuance of the present war and for a period of six months thereafter.

6 The Indian Patents and Designs (Temporary Rules) Act.—Like the foregoing war legislation this measure also is destined to have a temporary existence. It owes its origin to two English statutes the Patents Designs and Trade marks (Temporary Rules) Act 1914 (4 and 5 Geo. V. c. 37) and the Patents Designs and Trade marks Temporary Rules (Amendment) Act (4 and 5 Geo. V. c. 78). The Act enables Government to make rules—(a) for avoiding or suspending any patent or license granted to any enemy subject (b) for avoiding or suspending the registration of any design belonging to such person (c) for avoiding or suspending any application made by him (d) for enabling the grant to be made to any other person either for the whole term of the patent or registration or for such less period (e) for extending the time within which any act or thing may be done under the Act.

7 The Delhi Laws Act.—The purpose of this Act is purely local in its character. It aims at removing sixty five Revenue estates from the United Provinces of Agra and Oudh and adding them to the New Province of Delhi formed on account of the translation of the seat of the Government of India to Delhi. Those newly added estates are freed from the operation of some Punjab Local Acts which are peculiar to that Province and which did not hitherto govern them. (s. 2). They are enumerated in schedules 1 and 2. At the same time certain Acts which applied to them as being parts of the United Provinces are continued to them by s. 3. The act preserves to the people residing in the estates their laws and frees them from certain laws with which they had nothing to do before.

8 The Assam Labour and Emigration (Amendment) Act.—The Assam Labour and Emigration Act (VI of 1901) was found defective in some respects. It contained no safe-guard against the practice of procuring labourers from Native States and thus afforded opportunities for evasion of the statutory control of recruitment. This defect has been sought to be remedied by a definition of the term "natives" and by an addition of an explanation to the definition of "emigrate".

The second point on which the Act has been amended, is the repeal of s. 90 and Chapter III and the addition of a new Chapter VIIA. Effect is thus sought to be given to the recommendations of the Assam Labour Inquiry Committee. The system of obtaining recruitment by contractors has been put an end to. Recruitment

henceforth has to be through the Local agents. They are to be under the direction of a newly constituted Board known as the Assam Labour Board. The Board is to consist of an Official Chairman and fifteen representatives—eight to be selected by the Indian Tea Association Calcutta, four by the Assam Branch of the Tea Association and three by the Surma Valley Branch of the Indian Tea Association. The Executive Committee of the Board is to consist of five members one of whom is the Chairman of the Board one member each to be elected by the Indian Tea Association at Calcutta and London, and two more to be elected by the Assam and Surma Valley Branches of the Indian Tea Association. Provision is also made for the appointment and functions of supervisors to work under the Board and for the levy of cess to furnish funds for the operations of the Board and the payment of salaries of the Chairman and Supervisors.

9 **The Sea Customs (Amendment) Act**—Section 87 of the Sea Customs Act of 1878 provided that the rate of duty and tariff valuation applicable to imported goods warehoused under the Act were the rate and valuation in force on the date on which the application is made to clear the goods. This led in practice always to numerous applications for clearance where an increase in the rates was apprehended although there might be no present intention of clearing the goods. This defect in law is sought to be remedied by amending s. 87 and providing that the duty should be paid on such goods at the rate and valuation in force on the date on which duty is paid.

10 **The Sir Jamsetjee Jeejeebhoy Baronetcy Act**—The Act XX of 1880 which was passed during the life time of the first Baronet created a settlement of Government Promissory Notes of the nominal value of Rs 22,54,400 and a Mansion House called the Mazagon Castle in trust indicated in the Act. That Act has now been repealed and replaced by another Act. The Board of trustees is to consist of three persons the Commissioner N D the Accountant-General of Bombay and the Collector of Bombay (s. 3). The settled property is vested in the above Board (s. 5) who are permitted to invest it in any of the authorized securities (s. 6). The Baronet for the time being is empowered to sell with the approval of the trustees the Mazagon Castle and to purchase a new Mansion House in a more convenient and healthy locality in Bombay (ss. 8 and 10). To meet the cost of the purchase of the new Mansion House the trustees are permitted to spend Rs. 2,75,000 out of the proceeds of the sale of the Mazagon Castle (s. 11) and Rs. 2,25,000 from the securities (s. 9). The surplus if any of the sale proceeds of the Mazagon Castle is to be held on the same trust as the settled property (s. 14). The Baronet in possession is allowed to joinure (s. 17) to the limit of Rs. 20,000 annually (s. 18) but the Mansion House cannot be so dealt with (s. 19). The property is not capable of alienation (s. 20). The trust funds can be augmented only to the limit of Rs. 50 lakhs (s. 21).

11 **The Repealing and Amending Act**—This Act is designed to make formal and un-

important amendments in certain Acts of the Governor-General in Council and to repeal superfluous words in other Acts.

12 **The Indian Soldier (Litigation) Act**—The present war is accountable for this enactment. Early in the year the Governor-General of India in Council promulgated an Ordinance on the subject No. 2 of 1915. As an ordinance could remain in existence for only six months it is re-enacted by an Act of the Legislature. It provides for the special protection in respect of civil and revenue litigation of Indian soldiers serving under war conditions. Whenever any plaint application or appeal is presented to any Civil or Revenue Court, in which the adverse party is an Indian soldier who is serving under war conditions, that fact must be stated clearly (s. 3). If in any such proceeding the Indian soldier is not represented, the Court shall give notice to the prescribed authority (s. 4) and the proceedings are to be postponed pending service of such notice (s. 5). The Court may however proceed with the case if no certificate is received within three months (s. 6). But the Collector has the power to intervene in any such proceedings *suo motu* (s. 7). Powers are given to the Court to set aside decrees and orders passed against an Indian soldier serving under war conditions (s. 8). In computing the period of limitation prescribed by the Indian Limitation Act 1908 for any suit, appeal or application against an Indian soldier the time during which such soldier has been serving under war conditions since the 4th August 1914 shall be excluded (s. 11). The Governor-General in Council has the power to apply the provisions of this Act to other persons in the service of the Crown (s. 12).

13 **The North West Frontier Constabulary Act**—The Police Force in the North-West Frontier Provinces has been modelled on military lines. It went by the name of the Border Military Police Force and was governed by the North West Border Military Police Act (IV of 1904). The Force has been abolished and its place taken by the Frontier Constabulary. The main provisions of the old Act are re-enacted and applied to the new Constabulary. Since the date of the foregoing Act the old Indian Army Act on which many of its provisions were based has been repealed and a New Army Act (VIII of 1911) has been placed on the Statute Book. The provisions of the New Act have been here freely drawn upon. The members of the Constabulary are to be under the immediate supervision of Assistant or District Constabulary Officers, who are to be under a superior officer known as the Commandant (s. 5). The Officer placed at the head of the Force (s. 7). The more heinous offences, viz. abetting or joining mutiny, assaulting the superior officer, desertion, disobedience, spreading of false alarm and displaying cowardice while on duty are punishable with transportation for life or for a term not less than seven years with imprisonment which may extend to four years or with fine which may extend to three months pay. Some of these offences can be tried summarily by the Political Officer accompanying the Force sitting with two other

Officers appointed by him (s. 8). The less heinous offences enumerated in s. 9 are made punishable with imprisonment for a term which may extend to one year or with fine which may extend to three months pay section 10 acts out the minor military punishments viz. reduction in rank and emoluments, fine to any amount not exceeding one month's pay, confinement to quarters for a term not exceeding one month, confinement in the quarter guard for not more than twenty-eight days and removal from any office of distinction. The hard and responsible duties of the members of the force are set off by the general immunity from civil or criminal proceeding, by the plea that the act was done by him under the authority of such warrant or order (s. 11).

14. The Enemy Trading Act.—During the pendency of the war payment of money to hostile foreign subjects having been prohibited by Proclamation this Act calls into being a public authority to whom such payments can be made. The Governor General in Council is authorized to appoint a custodian of the enemy property (s. 1). Any sum by way of dividends, interest or share of profits payable to any enemy subject should be paid to the custodian (s. 4). The custodian has the power to refuse payments which do not fall within the Act (s. 7) and his receipt constitutes a good discharge to the person making the payment (s. 8). He is to hold the money so received, in accordance with the directions he may receive from the Governor General in Council (s. 9). No suit or other proceeding can be against the custodian in respect of any thing done by him in good faith under the Act (s. 10). Government have also the power to extend the provisions of this Act to payments the making of which is prohibited by or under the Enemy Trading Proclamation (s. 12) or to sums in the hands of public officers under enactments relating to foreigners (s. 13).

15. The Inland Steam Vessels (Amendment) Act.—Under the provisions of s. 204 of the Inland Steam Vessels Act of 1884 certificates of competency and survivor granted to Masters Engineers, etc. of Inland Steam Vessels had effect throughout British India. In 1912 the Government of Bengal pointed out that a knowledge of the river Hughli was essential for masters in charge of inland steam vessels in Bengal there was no guarantee that the holders of certificates granted elsewhere possess the necessary knowledge. The section is therefore re-enacted by limiting the validity of masters or engineers certificates of competency or service to the provinces in which they are granted such certificates can be valid in any other provinces also if so endorsed by the authority empowered under the Act to grant certificates in such provinces. Another point on which the Act has been amended is that it often happens in practice that a person holding a seaman's certificate of competency but subordinate to the master is temporarily in charge of an inland steam vessel. If the seaman so circumstanced displays incompetency, it has been held that his certificates cannot be cancelled as he is not the master of the vessel with in the meaning of the Act. The ss. 47, 48, 49

and 57 have therefore been now amended so as to make all persons holding certificates amenable to the provisions of the Act if they are found guilty of incompetency or misconduct. A new Chapter (VI—A) has been added to enable the Local Government to make rules to regulate the speed at which the inland steam vessels can be steamed. Inland steam vessels belonging to the Government of India have now been subjected to the provisions of the Act by an amendment of s. 67.

16. The Benares (Hindu) University Act.—The present Act is one of the most notable measures of legislation enacted by the Supreme Legislative Council for some time past. It establishes and incorporates a teaching and residential Hindu University at Benares. First of all it creates a corporation sole of the University by s. 3. The portals of the University are open to persons of all classes, castes and creeds but provision shall be made for religious instruction and examination in Hindu religion only this instruction is compulsory in the case of Hindus. Special arrangements are to be made for the religious instruction of Jain or Sikh students (s. 4). The constitution of the governing body of the University is well provided for. The Governor General of India for the time being shall be the Lord Rector (s. 5). The Lieutenant Governor for the time being of the United Provinces of Agra and Oudh shall be the Visitor who has the power to inspect the University and its colleges and to annul the proceedings of the University if they are found to be not in conformity with this Act, Statutes and Regulations (s. 8). The authorities and officers of the University are named to be: (1) The Chancellor, (2) The Pro-Chancellor, (3) The Vice-Chancellor, (4) The Pro-Vice-Chancellor, (5) the Court, (6) The Council, (7) The Senate, (8) The Syndicate, (9) The Faculties and their Deans, (10) The Registrar, and (11) The Treasurer (s. 7). In administrative affairs of the University the Court is the supreme governing body and has the power to review the acts of the Senate (s. 9). The executive body of the Court is called the Council (s. 10). The Senate is the academic body (s. 11) of which the executive body is called the Syndicate (s. 12). To meet the recurring charges a permanent endowment of fifty lakhs of rupees is to be made and invested in authorized securities (s. 14). The degree diploma certificates and other academic distinctions granted by the University are to have the same recognition at the hands of Government as those granted by the existing Indian Universities (s. 10). The formation and scope of Statutes and Regulations of the University are provided with minute detail in ss. 17 and 18. The Governor General in Council has extensive power to act in cases of emergency viz. the removal of any member of the teaching staff the appointment of a certain examiner and the raising of the scale of remuneration of the staff (s. 18). The University grows out of the present Hindu University Society which is now dissolved and all its property rights powers and privileges are to vest in the Benares Hindu University (s. 20).

Imperial Legislative Council.

The first session of the Imperial Legislative Council was held at Delhi on January 15th when the Viceroy made a statement on the international and internal situation. He dwelt with particular emphasis on the circumstances of **Turkey's entry into the war** on the side of the Teutonic Powers, pointing out that this was the first time when the British Empire had been at war with Turkey on whose side she had stood on two historic occasions. He was aware that the leading Moslem bodies in India had done their utmost to avert war with Turkey and that the authorities at Constantinople had turned a deaf ear to these representations. The fact remained that there was absolutely no reason for Turkish intervention. The Allies had more than once given solemn assurances to respect the independence and integrity of Turkey and there was no menace to Islam. On the contrary the Allies had made a declaration of the immunity of the holy places of Arabia and Meopotamia from attack while the British Government had even declared that they were prepared if any such need should arise to defend them against all foreign invaders and to maintain them inviolate. From the very moment of the intervention of Turkey it was clear that it was not to be expected that amongst Indian Moslems there would not be a natural sentiment of sympathy with a great Mahomedan Power. But when the character and motives of this war became fully known to and realised by the Moslems of India whatever might have been the sympathy with which their religious instincts might under other circumstances have inspired them any such sentiment was absolutely swept aside by their feeling of **unswerving loyalty** to the King Emperor and the British Empire whose cause in this war they recognised to be that of freedom, honour and justice. This had been yet one more of German miscalculations which would bring about her ruin. The Viceroy then turned to the services which India had rendered during the war. She had been in a position to send a force 70,000 strong to fight for the Empire across the seas, as announced on September 8th. Since he spoke those words their energies had been more than doubled and the five lakhs of the war—counting China as the fifth—Indian ~~had~~ ^{particular} ^{was} ^{representing} **300,000 combatants**. At the same time they had maintained their military forces on the frontier unimpaired to meet any emergency that might arise. The rise in the price of wheat had been a cause of anxiety therefore the Government had taken the export trade under their own control. The cotton situation also caused anxiety but there had been an improvement and Government had been prepared through the issue of loans through the Presidency Banks to assist this and other disturbed trades. The Viceroy then paid a tribute to the manner in which the **Princed Indian and Anglo-Indian** had conducted itself during the war and said the Government were opposed to drastic Press measures against the few that had offended unless they were forced upon them. Turning then to the programme of the session the Viceroy said that it was the desire of the Government to avoid

the discussion of **all controversial questions** during the continuance of the war so as to concentrate on the question the protection of the Empire from a ruthless and powerful enemy. One urgent question had, however to be settled—it was to pass a Bill prolonging the period of the emergent provisions of the law now contained in certain ordinances, recently passed. He asked for the co-operation of the Council in making these ordinances of effect so long as the war lasted and for a certain period thereafter. **The Foreigners (amendment) Bill, 1914** was introduced and referred to a Select Committee. **The Sir Sassoon David Baronetcy Bill**, to settle the endowment of the Baronetcy conferred upon Sir Sassoon David, was introduced. **The Sir Jamsetjee Jeejeebhoy Baronetcy Bill** was introduced. The purpose of this Bill is to modify the original Baronetcy Bill so as to empower the Baronet for the time being with the approval of the trustees to sell the family residence, **Mazagon Castle, Bombay** and to purchase a more convenient house and to confer on the trustees more extensive powers for the investment of the endowment funds. **The Emergency Legislation Continuance Bill** was then introduced. It was explained that since the outbreak of the war the Viceroy had found it necessary to exercise the powers conferred on him by section 23 of the Indian Councils Act and to issue ordinances conferring the necessary powers on the Government to deal with the emergencies arising out of the war. Ordinances issued under these powers had duration only for six months. The Bill would extend the duration of these ordinances for the period of the war and six months after wards. The standing orders were then suspended and the Bill as introduced was passed.

The Council reassembled on February 23rd when the Viceroy expressed the deep regret with which all had heard of the premature **death of Mr G. K. Gokhale**. Mr Gokhale was he said known in the Council as a speaker of conspicuous ability and wonderful eloquence whilst his earnest enthusiasm and sound judgment secured for him a commanding position amongst the public men of the country. He was a loyal supporter of British rule in India and ~~his~~ ^{his} ^{was} ⁱⁿ ^{many} ^{occasions} ^a ^{sharp} ^{critic} ^{of} ^{the} ^{administrative} ^{methods} ^{and} ^{policy} ^{of} ^{the} ^{British} ^{Government}. The Hon. Sir C. Chatterjee associated himself with this expression of regret and the Council adjourned until the next day as a mark of respect. When it reassembled the Hon. Mr. Clark introduced the **Indian Patents and Designs (Temporary Rules) Bill**. The Bill, he said, extended the powers of the Governor General in Council during the continuance of the war to make rules under the Indian Patents and Designs Act of 1911. It was solely a war measure for Government wished to have power to refuse patents to the subjects of countries at war with the Empire. The Hon. Mr. Das next moved a resolution expressing the **gratitude, devotion and loyalty** of India to His Majesty the King. After expressing the personal attachment of India to the King, which had been intensified by two visits to

the country and a warm care for the Indian soldiers at the front, the mover went on to declare— It is believed that Germany expected that India would support her in this war. If Germany harboured such an absurd belief it only shows how the West is often mistaken in its reading of the Indian character. It is all the more remarkable that this mistake should have been made by a nation which claims to have made a special study of ancient Indian literature. What is this war? Is it not a war between the moral forces of humanity and brute power? The object of the war is to establish the supremacy over all that is good and noble and virtuous in man. A few amendments to the verbiage of the resolution were suggested by the Commander in Chief and accepted. It was strongly supported by all the unofficial members of the Council, carried, and accepted by the Viceroy with an undertaking to convey it to His Majesty.

The Hon. Raja Kishopal Singh proposed a resolution dealing with the **promotion of industries in India**. This motion reflected a widespread desire throughout the country and it proved the general expectation of an industrial development which would make India a self-supporting country. There was a feeling that the certain hour had arrived through the absorption of Europe in war and the closing of the Indian market to Germany and Austria who were the principal exporters of manufactured goods. The resolution took the following form— "That this Council recommends that in view of the cessation of imports from hostile countries, the Government be pleased to invite the opinions of the Local Governments and Administrations as to the desirability of promoting industrial enterprise by loans on the lines of takavi advances. In supporting it the mover said that the only two countries which might possibly capture the Indian market were the United States and Japan. The present freedom from the commercial and industrial domination of Germany and Austria, Hungary was a temporary relief. Unless India filled the void caused by their elimination from the market it would be small solace if their place was taken by some other country such as the United States or Japan. But the history of industrially progressive countries supported the view that the State might with profit, render substantial aid to industries. The aid chiefly needed by India was the provision of capital. It was admitted on all hands that capital is badly needed in India for the development of her resources and the general complaint was that money did not flow into industrial channels in India as freely as in other countries. It was necessary therefore that Government should as a matter both of principle and policy finance such concerns as held out the best prospects of success. The resolution was supported by practically all the non official members of the Council. The Hon. Sir Gangadhar Chitnavis said that his experience in the Central Provinces had satisfied him that for Indian industrial development some scheme of financial assistance was desirable. Failure in many cases was due to scarcity of liquid capital at a time when it was most needed. This

was a country of small capital, and when a manufactory was started it frequently happened that the bulk of the capital was used up in the initial stages leaving only a small margin to serve as working capital. In his opinion the necessary financial aid to be effective should come from Government. This money should be distributed in the same way as takavi advances. The Hon. Mr. Dadabhai said there was an instant and growing demand in the country for pecuniary help to Indian industries. The banks were quite inadequate for this purpose they came back to the State and State help through the medium of takavi advances. The Hon. Mr. Ghotuavi said that in India they had none of the advantages which had conducted to the industrial growth of Japan. They had no capital no skill, and no expert knowledge. They required help for the encouragement of small industries such as weaving spinning sugar manufacture manufacture of salt glass and other metallic articles all these could be fostered under judicious guidance if capital were forthcoming. The Hon. Mr. Banerjee hoped that the Government would accept the resolution. They felt with all the depth of affection which they possessed that the future of India largely depended upon her industrial projects. We talk of political regeneration self government and so on but in our heart of hearts we feel that political regeneration can only come in the track of industrial growth and emancipation. We have the history of Japan before us we have the history of Germany before us. The Hon. Mr. Carr briefly described what had been done for the promotion of industries in Madras. He said the difficulties overcome were the employment of experts the building of factories the erection of machinery and the provision of capital. The Madras Government in addition to providing experts for investigation and guidance had advanced a sum of nearly two lakhs of rupees for the starting of special work in connection with industries in which the economic situation appeared to justify the hope that something new might be done. Work had been started on a pencil factory in Coronada on the revival of a glass factory on oil pressing experiments on oil refining experiments and on soap making experiments. The Hon. Sir Ibrahim Rahimtoola said that the suggestion of takavi advances was tantamount to making Government start the business of lending money on the mortgage of industrial concerns with more stringent powers of recovery of interest and principal than are possessed by ordinary mortgagees. Then what would happen to these industries immediately the war was over? They would be confronted by the subsidised and State aided competition of foreign countries. It would take two or three years before these industrial concerns were ready to produce manufactured goods by that time the same competition which had operated against the success of Indian industries in the past would be revived. Then what would become of these new ventures? There would be a good chance of success for new industries if India was allowed to work on the principles of fair trade. The Hon. Sir Faruqbay Ominabhai said there were weighty political reasons to justify the acceptance of the motion.

tion. There was a strong feeling that Government should do more for Indian industrial development than it had hitherto done and that this development in a large measure depended upon the fiscal and economic policy of the Government. Unless the new industries were protected they could never thrive. There were capitalists who were ready to put their money into the development of industries if Government assured them that these industries would be productive. The Member for Commerce and Industry replying on behalf of Government said there were two main difficulties in the way of taking advantage of the present economic conditions in order to advance Indian industries. The first was the one of capital which was particularly difficult to obtain during a war and the second was the impermanence of the war conditions out of which the present opportunity arose. When it was suggested that Government should provide the capital required it was apparently forgotten that Government in time of war was faced by many pressing needs for money in addition to the natural contraction of the money market. The essence of takavil loans was that they rested on a certain security land. This was a security on which Government could always rely. The position was very different in regard to such items as plant and industrial goodwill. He joined issue with those who said that Indian industries were wanting if they looked back five, ten or fifteen years; they would find that there has been a steady development. In their present financial circumstances the Government would not contemplate a policy of locking up large sums in the initiation of industrial enterprises. They had done much to strengthen the banking position which was the lifeblood of commerce by offering to make loans to threatened trade through the Presidency Banks. Whilst therefore in full sympathy with the object of the mover Government could not accept the resolution in the form in which it was proposed. By agreement with the mover the amendment was modified and accepted in the following form—

That this Council recommends that in view of the opportunity afforded by the cessation of imports from hostile countries Government should afford such assistance and co-operation as may be practicable in the promotion of industrial enterprise in India.

At the sitting on March the 2nd the Commander-in-Chief answering a question by the Hon. Raja Jai Chand gave the following information as to the scale of pension allotted to Indians in the Army—

An Indian officer or soldier who is totally disabled receives special pension. The amount varies according to the rank of the pensioner. Government does not provide an additional pension for families during the life-time of the pensioner himself.

The maximum and minimum disablement pensions are—

For an Indian Officer	Maximum	Rs 140 per mensem
	Minimum	Rs. 30 per mensem
For a Sepoy	Maximum	Rs 15 per mensem
	Minimum	Rs. 5 per mensem

The Finance Minister introduced the Budget. This will be found fully discussed in the Section Indian Finance (see ante). The main features are therefore only very briefly indicated here. The Budget estimate for 1914-15 provided for a deficit of £1.9 millions owing to the heavy expenditure by Provincial Governments from their accumulated balances. The actual deficit was £4.9 millions arising in the main from the conversion of an estimated Imperial surplus of £1.2 millions into an Imperial deficit of £2.7 millions. The Budget for 1915-16 estimated for a revenue of £80.3 millions and an expenditure of £84.1 millions and a deficit of £3.8 millions. It was not proposed to meet this by any increase in taxation but out of loans. The Government proposed to continue the loan of £7 millions from the Gold Standard Reserve. The Secretary of State intended to renew the £7 millions of India Bills which he had raised during the current year. They proposed to raise £3 millions (4½ crores) in India by borrowing £8½ millions by fresh borrowings in England either direct or through the agency of Companies working State Railway lines. The Law Member introduced the Delhi Laws Bill, explaining that a strip of territory on the eastern bank of the Jumna had been transferred from the United Provinces to the Province of Delhi for reasons of health, extension and other interests attaching to the surroundings of the new capital. It has always been considerably desirable and convenient to vest the control of the River Channel in a single authority. The Bill declared the enactments by which the added territory would be governed. The Home Member presented the Foreigners (amendment) Bill as amended by the Select Committee.

The Council reassembled on March 8th when the Hon. Mr. Dadabhai moved a resolution to reduce the allotment for railways in the coming year by fifty lakhs of rupees and to devote the amount so freed to the Provincial Governments for the development of education and sanitation. He said there was almost unlimited scope for the employment of funds, both public and private for the promotion of education and sanitation. The provincial expenditure under these two heads together with medical had been less by £1 million in the current year as against the Budget provision. It was true that the Budget grant to the Provinces showed a slight advance upon the revised estimate for the current year. But the unfortunate circumstance was that it was insufficient for any reasonably large progress and that the large number of schemes prepared within the year would be hung up indefinitely. Last year the capital expenditure on railways was over £12 millions. Now after the two years heavy outlay it would not be wrong to claim a respite at least in the matter of the construction of new lines. The Hon. Sir Ganga Dhar Chitravasi said there was still much room for sanitary improvement and any increased grant would be most thankfully received and usefully spent. The Member for Commerce and Industry, intervening said that from the railway standpoint it would be most uneconomical to proceed, as Mr. Dadabhai had proposed, by merely taking up new construction when there happened to be large surpluses.

possibly spaced out by considerable periods during which all the work previously done had been lying idle and all the capital employed had been lying idle. He submitted that it would be inexpedient to fail to proceed with the construction of the small new railways provided for in the Budget. They had to look forward to a great revival of trade when the war was over. There was also the question of employment. It was very undesirable that anything should be done to lead to greater unemployment than must inevitably be the result of the war. The Hon. Mr. Ghuznavi showed that there was a profit from the railways and the irrigation works of some six millions sterling. There were other ways in which money for education and sanitation could be obtained than by curtailing the railway budget. The Hon. Mr. Marshall Reid pointed out that the Budget reduced the railway grant from £12 millions to £8 millions. His own opinion was that to go ahead properly and to maintain the railways something like £15 millions sterling or £16 millions was required. Those who had advocated the claims of education in the circumstances should be well pleased that they had received almost as large a grant during this year of war as they had ever had before. The Finance Member showed that the Railway programme had been curtailed by one third. He did not in the least undervalue the benefits of education and sanitation, but the people were equally benefited by an expansion of railway facilities which expanded trade, mitigated the effects of famines or scarcity and added to the personal convenience of Indian travellers. The financial effect of Mr. Dadabhai's proposals would be not merely to add to their Imperial revenue deficit, but to diminish their cash balances, and to increase pro tanto the amount of next year's borrowings on account of the unproductive debt, the productive borrowing being decreased in like proportion. From the financial point of view this was a most unsound proposal. Taking all the heads together the diminished outlay under education and sanitation was trifling in comparison with the reduced provision made for railways. The Hon. Mr. Abbott opposed any reduction in the construction of railways and the resolution was rejected. The Hon. Mr. Dadabhai proposed a resolution that the court of the Judicial Commissioner of the Central Provinces be replaced by a Chief Court, consisting of five Judges or more. He said that the Judicial Commissioner's Court was unsuited to the present conditions of the Central Provinces and Berar. Socially, economically and politically the development of the Provinces had been very great indeed. Notwithstanding the ravages of plague and famine the population had grown from 10,879,184 in 1871 to 16,033,310 in 1911 or an improvement of nearly 50 per cent. Such a progressive population demanded better and more up-to-date arrangements for the administration of the Province and the existing administrative machinery failed to satisfy them. The growing sense of importance of the Provinces people required that a Chief Court should be established at Nagpur. Sir Gangadhar Chitambar said there was a desire among the local people for an improvement in the machinery for the administration of justice in the Chief Court of the Province with a view

to cope expeditiously with the increased work on account of the development of the Province. They had also to count with the new sense of dignity which the Province now had. The Home Member felt doubtful whether the mere alteration in the name and status of the Court was going to alter materially the nature of the justice administered by that Court. However, he hoped the mover of the resolution would be satisfied if the attention of the local administration was drawn to his resolution and an opportunity given to the local administration to consult with their officers with the Judges of the Judicial Commissioner's Court and with non-official members. When they had considered that question if the chance was room afforded by the local Administration and it was considered by the Government of India that a case had been made out no doubt necessary action would be taken. The resolution was withdrawn.

The Council, re-assembling on March 9th commenced the second stage of the discussion of the Budget when it is considered head by head. The Revenue Member introduced the item concerning his department when the Hon. Pandit Madan Mohan Malaviya moved a resolution that the budget allotment for productive irrigation works be increased by fifteen lakhs of rupees. His argument was that the Irrigation Commissioner recommended that the whole amount of the Famine Insurance Grant should be devoted to irrigation works such as may be needed for the actual relief of famine when it should occur but they found that even that sum had not been maintained. In 1912-13 the amount spent was Rs. 92,33,927 whilst in the budget for last year Rs. 1,80,00,000 was provided and Rs. 1,74,96,000 spent and in the budget for the coming year only Rs. 1,60,00,000 were provided. In the budget before them railways were expected to yield 32 per cent and irrigation 0.01 per cent. It seemed then that irrigation was even so much more profitable than railways as well as being more beneficial in many respects. The Revenue Member whilst welcoming the resolution said that they had provided in the budget for the full amount which they reckoned that they could spend. There were very great difficulties in preparing large irrigation schemes. Still they hoped to be able to spend more freely in future when the works now under consideration were put in hand and experiments were being undertaken which would lead to a great economy of water. He had done all in his power to spend the largest possible sum on productive irrigation works. The motion was rejected.

The Education Secretary and the Member for Commerce having introduced their heads the Hon. Pandit Madan Mohan Malaviya moved a resolution recommending that a sum of twelve lakhs of rupees be provided in the budget to aid and encourage indigenous industries. The debate on this subject followed the lines of the earlier discussion of the same subject, which has already been fully summarised. No new matter was introduced into it. The Member for Commerce opposed it on the ground that the mover had not suggested that his twelve lakhs should be

provided from other sources and on the existing basis the Finance Member could not expand his revenue even by the comparatively modest sum of twelve lakhs. This was not the moment in the midst of the economic disturbance set up by the war to ask the Government to launch a new policy. The resolution was defeated on a division by 36 votes to 14.

The Hon Pandit Madan Mohan Malaviya next moved that the budget allotment for the working expenses of the railways should be reduced by ten lakhs of rupees. In so doing he drew attention to the rapid rise in the working expenses of the Indian railways since the establishment of the Railway Board. Before the Board came into existence, that is to say up to the year 1905 the percentage of working expenses to gross receipts averaged from 46 to 48. By 1909 it had gone up to 62 per cent and by 1910 to 63 per cent. This rapid rise in the working expenses necessarily reduced the profits on the railway system which were only 53 per cent in the present year and were estimated at 32 per cent in the coming year. The railways had cost immense sums and the country was getting very small returns. The Member for Commerce pointed to the difficulty of cutting down ordinary expenditure merely because traffic falls off. A great proportion of the working expenses must be fixed expenses such as wages of the staff and working costs could not be largely reduced merely because a few trains had been taken off. The railways had done very well to effect the substantial saving that had been secured. With regard to special expenditure this had been debated in an earlier resolution. When members deprecated the expenditure necessary to bring the railways up to the capacity of the traffic demands upon them they forgot the acute congestion on the railways during the past two or three years and the complaints which arose on all hands in commercial circles. It was undeniable that injury had thus been done to trade. Lately the Government had pursued a policy of steady and continuous development; he had not the slightest doubt that they were doing right and were acting in the best economic interests of India. It was one of the matters on which he looked back with the greatest satisfaction now that his five years in India were drawing to a close that he would leave the railways in a fair way to have drawn close to the demands which may reasonably be expected to be made upon them. The resolution was rejected and a consequential resolution, proposing that the capital expenditure on railways should be reduced by twenty five lakhs of rupees by the same member was withdrawn. The Home Member and the Finance Member introduced their respective heads.

When the Council reassembled on March 17th the Indian Steam Vessels (Amendment) Bill was introduced. The Commerce Member moved for leave to introduce a Bill further to amend the Assam Labour and Emigration Act, 1901. He explained that the object of this Bill was to secure a closer and more adequate supervision of recruitment of labour for the tea gardens in Assam. It provided for the complete abolition of recruit-

ment by contractors a system which had been found in the past to be least susceptible of proper control and to have been the most open to abuse. Recruitment will be conducted almost entirely through garden gardens working under local agents that is to say by men employed on the gardens who came out for recruiting purposes to the recruiting districts and are there controlled by local agents. These local agents will be supervised by a board and its staff. The Commerce Member introduced the Sea Customs (Amendment) Bill dealing with a single point in Indian Customs law. The effect of this amendment will be to make the duty chargeable on goods in warehouses the duty in force at the time of their actual removal. The Home Member moved that the report on the Foreigners (Amendment) Bill be considered and the Bill as agreed to was passed. The Hon Mr. Rayanagar provoked a most interesting discussion by proposing that steps be taken to make the Indian vernaculars the media of instruction and the study of English as a second language compulsory for Indian pupils in all secondary schools. This raised again what is commonly known in India as the battle of the vernaculars and resulted in a wide diversity of opinion. The mover maintained that a little examination would reveal the superior advantages of imparting instruction through the vernaculars. If any real knowledge was sought to be communicated to an uneducated boy the medium of the mother tongue must have undoubted advantages. If attention was diverted to the difficulties of a foreign tongue in addition the immature mind naturally failed to assimilate either the language or the knowledge it was sought to convey. This led to cramming and the mechanical repetition of half understood sentences. In another direction the present method worked a hardship. No serious attempt in the direction of spreading female education could be carried out without providing a vernacular basis for secondary education. The Hon Mr. Dadabhai opposed the motion on the ground that it was calculated to be prejudicial to the best interests of the country. Through out the long controversy between Orientalists and Occidentals over the medium of education the governing principle of the advocates of English was the creation in India of a class of men thoroughly grounded in European science, arts and philosophy who would serve as the commanding medium of Western culture to the general population. The mover thought that English education had failed to stimulate thought and original research. If he had reviewed the history of the past fifty years he would have found sufficient material to modify his views. The Hon Mr. Ghumanavi found himself in complete disagreement with the Hon. Mr. Rayanagar. The Hon. Mr. Banerjee said, speaking for Bengal that any proposal involving a curtailment—even a possible curtailment—of the area of English education would be viewed by his countrymen with mingling and even with alarm and anxiety. They owed an immense debt of gratitude to the noble language and literature of England. If to-day India was instinct with a new spirit and new life it was all due to English education. At the same time the vernaculars of India

had made marvellous progress. The great majority of the Bengalee language were all steeped in western culture. He proposed a slight modification of the resolution but even this was opposed by the Hon. Raja Sir Muhammad Ali Muhammad Khan. The Hon. Mr. Das said that it was no use trying to supplement the defects of the mother's language by a gramophone and to call it the mother tongue. The Hon. Sir Fazululhoq Currimbhoy representing the Province of Bombay which is remarkable for its great attachment to English education opposed the resolution. The mover's scheme was unworkable. India was a land of numerous vernaculars and it was frequently the case that boys with different vernaculars read in the same schools and in the same classes. If effect was to be given to the mover's idea either the teaching staff would have to be multiplied or the schools disintegrated. The Hon. Pandit Madan Mohan Malaviya suggested that an inquiry should be made to decide how far the suggestion was a feasible one. The Hon. Mr. Huda maintained that the proposed method of education for Indian boys as placed before the Council in the resolution was not only retrograde but something worse. The mover wanted them to adhere to a method which had proved a total failure in the past. The Hon. Sir Ibrahim Rahimtoola said one of the greatest boons which the British Government had conferred upon the country was to provide it with a common language. They should not lose sight of the fundamental fact that their common language must be English, and that anything which militated against the facilities for the study of English ought not to find the slightest support from any quarter. The Education Member said that no proposal to dethrone Western culture or to restrict English education would commend itself either to the Government or to the Council. It was the accepted policy that vernaculars should be the medium of instruction for boys up to thirteen years of age and that vernacular should be a compulsory subject after that age during the whole of the school course. Vernacular was already the basis of instruction in secondary English schools until the three or four higher classes were reached. The only question was about it being adopted as a medium of instruction in those higher classes or in some of them. In considering this question they should remember that only about one-tenth of those who entered secondary schools entered the University. It was a subject on which different views might very well be taken in different provinces and even in different parts of a province with reference to local conditions. But in view of the opposition which the resolution had excited he thought it better to say that no reference to the local governments would be made until after the war. The resolution was withdrawn.

Another well worn subject was introduced when the Hon. Rai Bahadur Zita Nath Ray introduced a resolution urging that encouragement should be given to the development of the Indian sugar industry. He pointed to the remarkable fluctuation in the Indian sugar trade. There was first the subsidised and bounty-led Austrian and German beet sugar and the imposition of the countervailing duty and the later disappearance of the

bounties. Java secured a strong entry into the Indian market and three-fourths of the sugar now imported came from that island. Simultaneously instead of keeping pace with the requirements of the ever-increasing population there was a considerable shrinkage in the acreage under cultivation. The reasons for this were set out in official despatches. They were that sugar cane in India was grown in small patches scattered over wide areas, not only it was crushed on a small scale and treated by primitive and unscientific methods which caused great waste. On account of these defects India could not successfully compete with foreign sugar which was produced by well-equipped factories situated in a tract of suitable land sufficient to the production of all the requisite cane and so closely connected by tram and other means of communication with the factories that the cane could be crushed before chemical decomposition set in. If India was to compete with the foreign imports the Indian Government must adopt the same action as the Dutch Government in Java and the Japanese Government in Formosa. In view of the financial situation he would not go further than propose that an attempt should be made to promote the starting of one sugar factory on the lines of the centralised sugar tract system under Government guidance and with Government help in each of the two Provinces of Bengal and the United Provinces which were still the two largest sugar producing tracts in India and that these factories be equipped with all the necessary appliances and established in the midst of a large tract or acquired lands, the area of which should not be less than 2,000 acres. The Revenue Secretary protested that the mover had taken an unduly gloomy view of the situation. There was nothing in the figures of acreage and turnout to support the view that the industry was in danger of extinction and if they compared the figures of the past five years with those of the preceding five years it would be found that whilst there had been no falling off in acreage there had been a marked increase in output. The essential feature of the Japanese system in Formosa was that the farmers in the sugar tracts were bound to sell their cane to the mills and they could be punished either for making the sugar themselves or for selling the cane to anyone else. He thought it was clear that any system of growing cane under official pressure was unattractive to the people of India. The reason why Java sugar could compete successfully with Indian sugar was not because it was subsidised but because apart from a highly efficient system of manufacture the output was very much higher than in India. In Java the average yield was over 40 tons to the acre and in India the estimates placed it at between 12 and 20 tons. Over and above this the Java cane contained a higher percentage of sugar than the Indian cane. Government were doing a great deal to promote the cultivation of sugar. In Assam they had put down an experimental plantation. In the United Provinces they had appointed a Sugar Engineer. In Madras they had a cane breeding station. It was early to speak of the results but there was every reason to hope that those who were working on the

problem would be successful. The Commercial Member pointed out that whilst the imports of sugar were increasing they still represented only a small portion of the total Indian consumption. The production of cane sugar in India (consumed for the most part in the form of gur, is an uncertain quantity but it probably exceeds 2,000,000 tons and there was also close on half a million tons of palm tree sugar making over 3 million tons in all. As against this our imports amounted in the previous year to only 800,000 tons.

One great obstacle to the realisation of the central factory in India resided in a feature common to all systems of land tenure in this country. It was that perfect liberty was left to the tenant or occupant as regards the selection of crops. It would be a most serious and dangerous step to take away that liberty. The Resolution was rejected.

The Council reassembled on March 19 when the Viceroy announced that the Secretary of State had sent the following reply to the message of loyalty unanimously adopted at the meeting of the Council on February 24.

I have inform Council that it has given me much pleasure to lay loyal resolution before His Imperial Majesty the King who has read it with great satisfaction. The Viceroy then spoke of the Bill which was to be considered that day the Defence of India (Criminal Law Amendment) Bill. He did not disguise that it presented opening for controversy and he would have been pleased to think that Government would have done without it but they felt that a precautionary measure of this nature had become necessary in order to ensure public peace and tranquillity. It was a war measure to last during the period of the war and for six months afterwards. That on enactment certain important clauses did not apply automatically to the whole of India but only to those districts or provinces which upon the advice of local Governments might be notified. It rested with the people of India to decide how far it might be necessary to put those clauses into force. The fact that such a bill had become necessary in India as a precautionary measure should not be regarded as in any way a slur on the people since it followed in a natural outgrowth of the Defence of the Realm Act passed in both Houses of Parliament and now in force in the United Kingdom but in so far as trial by court martial was replaced by trial by Special Commissioners it was of a less drastic nature.

The Home Member in introducing the Bill sketched the present condition of the country.

Thus the state at which we are now certain disturbers of the general tranquillity in a few parts of the country have taken advantage of the opportunities which the state of war has created to break the peace. It is no news to the Council that there has existed for some time past on the Pacific Coast of America and in the Far East a party of anarchists and revolutionaries who have been engaged in scattering revolutionary seed first among Indians in those countries and secondly within India itself by private communications, by despatch of emblems, and by the dissemination of anarchical and revolutionary literature. This party which may be conveniently described as the Ghadar

party, saw in the great European War their best opportunity for attempting to translate their doctrines into action. Large numbers of deluded men intoxicated with this poison have been returning to India during the last few months and though the Government of the Punjab have been able under a War Ordinance to put under restraint a number of the leaders of this movement among the returning emigrants and many others of them who appeared to be dangerous yet the great majority about whom nothing was known were allowed to return to their homes as the Government had no desire to be strict with possibly harmless people. But some of these together with their sympathisers already in the country have been committing or attempting to commit acts of violence and it is therefore of the greatest importance that this mischief should be most promptly suppressed.

Closely akin to this movement is the anarchist movement in Bengal. That we have had with us for a long time sometimes it has been temporarily quiescent and some times it has recrudescence and at the present time there has as the Council is aware been a severe recrudescence and the crimes committed have become increasingly daring. These two movements in the Punjab and Bengal are more closely connected than might be supposed. They may attract different kinds of followers and they may pursue slightly different methods but their ultimate aims are the same and the security of loyal India requires that they should be suppressed.

I hardly will come to a class of disorder which has characterised recent disturbances in the Western Punjab. This is of a different kind and has no definite political object when it starts—it is simply lawlessness partly induced by economic interest. Men break out against the restraints of the Law to plunder their weaker neighbours and if this lawlessness is unchecked, it soon assumes the aspect of rebellion against all constituted authority or it may take on the complexion of racial or religious rioting. In some of the Western Punjab districts indeed it is rapidly becoming a movement among lawless Mahomedans under the stress or pretext of high prices to loot and plunder their Hindu neighbours to wreck the shops and houses of Hindus and burn their bonds and books. Violent mobs of this kind rapidly swell in number, any success draws in fresh adherents or produces imitators and the danger may become a very serious one if it is not effectively dealt with at the very start.

At a time of a war like the present one which has extended from Europe into Asia there must always be wild rumours flying about and potential disturbers of the peace may excite the people at large more easily than in ordinary times, calling to their aid economic unrest or religious fanaticism. It is therefore particularly incumbent on the Government to take all precautions against breakers of the public tranquillity or mischievous excitement of popular feeling.

Referring to the machinery for trial under the Bill he said that it prescribed a special tribunal of three Commissioners for the trial of acts which constituted offences under the

Bill as well as for other offences known to the existing law which were punishable with death, transportation, or imprisonment for seven years, including conspiracy to commit such offences, or attempt or abetment of such offences. In England all serious offences against the Regulations were triable only by courts martial. In India they would be tried before Commissioners of whom two at least would be persons who were Judicial officers of experience. The measure was generally supported by the non-official members of the Council. The Hon. Lieut.-Col. Raja Jai Chand fully realising the necessity of the Bill, supported it with all his heart. The Hon. Sir Gangadhar Chitnavis said that drastic though the proposed legislation was he must support it. Extraordinary circumstances justified extraordinary measures. The Hon. Sir Fazlulhoy Currimbhoy said that the Bill had his support for the sole reason that he was honestly convinced that at a moment of grave national crisis like the present one, political rights must give way. The Hon. Mr. Banerjee said he was not convinced as regards several of the provisions in the Bill because it traversed ground beyond military and naval considerations and raised issues of a highly controversial character. The Hon. Sir Ibrahim Rahimtoola felt that while whole-heartedly in favour of any legislative measure which might be considered necessary by Government to meet existing circumstances the non-official members felt that the provisions of the Bill needed some alteration and amendment. The Hon. Pandit Madan Mohan Malaviya supported the principle of the Bill but urged that it should be referred to a Select Committee and not passed in its present form. The rules of business were suspended to allow the Bill being taken into consideration. It was considered clause by clause certain amendments were made and the Bill was passed. The Home Member said it was a source of satisfaction to the Government to find how hearty had been the support accorded by the Council to this measure. He gave an assurance that the action taken under it would not be more stringent than the necessities of the case warranted.

At the meeting on March 22 the Finance Member presented the revised financial statement. He said the effect of the latest corrections was to increase the Imperial deficit by £44,000 and the Provincial deficit by £58,000. As regards the Budget of next year the effect was to raise the Imperial deficit by £187,000 and the Provincial deficit by £15,000.

The Indian Paper Currency (Temporary) Amendment Bill was passed. The Hon. Sir Harcourt Butler moved for leave to introduce the **Banaras Hindu University Bill**. He said that in a series of compromises the Government and the promoters of the University had arrived at conclusions which he believed took the Bill out of the domain of controversy. In giving a brief description of the organisation of the University he said—

“I will now try to give a brief account of the organisation of the new University. You will see that it is a somewhat complicated

organisation and it has been necessary to define and adjust functions with some care. The University is an All-India University. It is incorporated for the teaching of all knowledge, but will commence with five faculties: Arts, Science, Law, Oriental Studies and Theology. I know that many of the promoters desire to add a faculty of Technology. This desire has my full sympathy and I trust that adequate funds will soon be forthcoming. The University will be open to students from all parts of India on conditions which I shall specify hereafter. The Governor General is Lord Rector of and the Lieutenant-Governor of the United Provinces of Agra and Oudh is the Visitor of the University. Among those whom the University will delight to honour are Patrons, Vice Patrons and Rectors. The governing body is a numerous and very representative Court with an executive body in a Council of not more than 10 Members of whom five will be members of the Senate. The academic body is the Senate consisting of not less than 50 members with an executive body in the Syndicate. The Senate will have entire charge of the organisation or instruction in the University and constituent colleges the curriculum and the examination and discipline of students and the conferment of ordinary and honorary degrees except in matters reserved to it. The Senate is under the control of the Court working through the Council. The Senate will be constituted as follows—

I. Ex-Officio.—(a) The Chancellor, the Pro-Chancellor, the Vice-Chancellor and the Pro-Vice-Chancellor for the time being. (b) The University Professors. (c) The Principals or heads of constituent colleges of the University.

II. Elected.—(a) Five members to be elected by the Court. (b) Five members to be elected by the registered graduates of the University from such date as the Court may fix. (c) Five representatives of Hindu religion and Sanskrit learning to be elected by the Senate. (d) Should the Vice-Chancellor declare that there is a deficiency in the number of members required in any faculty or faculties then five or less persons elected by the Senate eminent in the subject or subjects of that faculty or those faculties.

III. Nominated.—And five members to be nominated by the Visitor. The Syndicate will consist of the Vice-Chancellor, Pro-Vice-Chancellor and fifteen members of whom not less than ten shall be University professors or principals or professors of constituent colleges. The object aimed at is to secure that purely academic matters should be decided by a body mainly expert while the government and supervision of the University rest with the Court and the Council. It is necessary to represent the Senate on the latter in order that the academic view may always be before it. The Court will elect its own Chancellor and Pro-Chancellor, Vice-Chancellor and Pro-Vice-Chancellor. In the first instance these officers will be scheduled. The Vice-Chancellor will be ex-officio Chairman of the Council, the Senate and the Syndicate. He will be the Chief Executive officer of the University. The University will through the Council and the Board of Appointments appoint its own pro-

fessors and staff and have entire control over them. Stability is given to the constitution by requiring the sanction of external authority to changes in the statutes and the regulations (this is the outline of the constitution of the University). The Government binds itself to accept the degrees etc., of this University as equivalent to the degrees etc. of existing Universities. This in itself is no mean concession.

I have seen this constitution described as illiberal and I have rubbed my eyes in amazement. It is far more liberal than the constitution of existing universities. No Government can allow universities to grow up without control. In most European countries the universities or at least the majority of them are entirely State universities. In the course of these discussions two policies emerged. One was a policy of trust. The other a policy of distrust. The Government might well have said to the Society—You are starting a new kind of University without any experience of it in India. We must leave the lump with officials who have the requisite experience. We must guide you from within at any rate until you prove your worth and the value of your degree. That would not have been an unreasonable attitude. But we preferred to trust the Society to leave them large autonomy and to reserve to Government only the necessary powers of intervention if things go wrong.

Some of the promoters had added desired to keep the recognition of schools in the hands of the University and to conduct their own matriculation examination. This wish was opposed to all the best modern views on this subject. Meanwhile the position would be this—The Benares Hindu University will accept for admission to its courses all candidates from schools at present recognised by an existing university or by a Local Government or by a Durbar who have passed the matriculation examination of such university or obtained a recognised school leaving certificate. The Benares Hindu University will also be able to impose any additional test on such candidates that it may think desirable. The Benares Hindu University will hold its own matriculation examination at Benares for all candidates for the faculties of Oriental Studies and Theology and for private candidates (on usual conditions) in other faculties. Finally in order to meet the strong desire of some of the promoters that certain schools should prepare exclusively for the Benares Hindu University it has been decided to allow such a course provided that such schools are recognised by the Local Government of the province or by arrangements which will have to be decided hereafter by the Durbar of the State in which they are situated and provided also that such schools are not allowed to send up candidates for matriculation at any other university. Only in this way can complication of school curricula and confusion in the examination system be prevented. The Secretary of State allows this large concession involving some breach of principle in deference to the sentiment of the promoters. It will come under reconsideration if at any time the school leaving certificate generally ousts the matriculation examination of other universities.

The Bill received a cordial recognition from nearly all the non-official members although the Hon. Mr. Setalvad pointed out the danger of sectarian universities as contrary to the unifying ideas that the Universities of India had exercised for many years. Leave to introduce the Bill was granted.

The Indian Patents and Designs (Temporary Rules) Bill was passed. The **Delhi Laws Bill** was also passed.

The Hon. Pandit Madan Mohan Malaviya then moved the following resolution: "That this Council recommends that the Governor General in Council may be pleased to prohibit all export of wheat from India until the price of that commodity comes down to 9 seers per rupee and whenever it rises above that rate or to take such other steps as he may be advised to bring the price of wheat down to a reasonable level and to maintain it at such level." He said the Council was not doubtful aware that there had been an abnormal rise in the price of wheat and of other cereals. There had consequently been a great deal of suffering among the great bulk of the people. How great the rise has been was evident from the index numbers given at page 14 of Mr. Datta's report on the elaborate and painstaking inquiry made by him into the rise of prices in India. They found that taking the average of the prices of wheat during the quinquennium 1890-94 as 100 in 1900 it stood at 94 and in 1912 at 141 i.e. that in the course of 22 years the price of wheat had risen by nearly 45 per cent. During the last two years also the price of wheat had been abnormally high. But never did it rise so high as during the last few months. In the great famine of 1897 the price of wheat was indicated by the number 145 in that of 1900 by 134 so that the price was as high in 1912 as it was in the famine year 1900. Since the war broke out the price of wheat had gone up much higher. Wheat had sold at the rate of 8 seers the rupee, a rate which was never known to the people of this country before. It was necessary that Government should take immediate and effective measures to prevent wheat from going out of the country except when it could be spared without pinching the people. As an export duty would not serve that purpose the only measure which struck him as feasible was to prohibit all exports until prices came down to 9 seers a rupee.

The Commercial Member intervened early in the debate in order to present the point of view of Government. He said—"The question of the high prices of wheat which forms the subject-matter of this resolution is one of the most momentous economic problems with which Government have had to deal during the currency of the war. The situation which has recently existed in India is unparalleled probably in the economic history of the country. Since the early days of February there has been every reason to anticipate, unless some unforeseen disaster should occur one of the largest wheat crops on record. Yet up to the date of Government's recent announcement prices have not fallen but rather have continued to rise. It is not surprising in these circumstances that Indian consumers should feel the contrast between the high level of prices

and the indications of a bounteous harvest about them, to be bewildering and even sinister and that wild reports should have been circulated of the whole crop having been bought up and other dangerous and baseless rumours of the kind. They do not understand, and they could hardly be expected to understand, that the same forces, the cheapness and efficiency of communications which have acted so largely to India's wealth by bringing her produce into the markets of the world, expose her also to heavy demands when the world's produce falls short of its requirements. There had therefore been not only very real economic distresses but great discontent and disturbance of men's minds owing to this continuance of the high price of wheat.

"The course which Government had decided to take was if he might say so bolder and more comprehensive than the remedies which he had discussed so far. They proposed no less a matter than taking over the **whole control of the export trade**. Their communication foreshadowed this in that it stated that after the 1st of April no private export of wheat would be allowed. What they proposed was that what for export should only be bought on behalf of Government and only shipped on behalf of Government. They should therefore prohibit the export of wheat except on behalf of the Crown from the 1st of April to the 31st March next year. They had decided to extend by another three months the period of prohibition originally announced in their communication. It was their desire as far as possible to avoid interference with the ordinary channels of trade and they proposed therefore to employ as their agents in this business firm who normally conducted the export trade of wheat in India. They proposed to appoint a special officer who would be known as the **Wheat Commissioner** with a sufficient staff to supervise operations in India and had selected for this purpose Mr Gubbay a very able official in the Customs service who had had special experience of commercial questions. The firms employed would buy at prices fixed by them and up to quantities fixed by them. The wheat would be shipped in the main to London and would be sold there through ordinary commercial agencies on behalf of Government. The firms acting as their agents would be remunerated in the ordinary manner by a commission, and the profits of the transactions would accrue to Government. As he had already indicated these profits might be large and it had seemed to them right that they should be secured by the State rather than that they should go to the enrichment of any particular class of the community but they regarded these profits as in a different category to their ordinary revenue and they hoped that it might be possible to make some arrangements by which such profits as might accrue would be reserved for special purposes. The essence of the scheme was that Government would have the power of **fixing the prices** at which purchases were to take place in India for export or rather above which they were not to take place. This with the additional safeguard that Government would also prescribe the maximum quantities to be bought should secure that there could be no possibility of purchases for export forcing up prices. If the mover

would amend his resolution so as to embrace this policy Government would accept it."

An interesting debate followed. The Hon Sir Ibrahim Rahimtulla said the sympathy of the people could not but be with the cultivators who would be deprived of the substantial profit which would accrue from high prices. He preferred a sliding export duty. If Government did undertake the management of the wheat export he suggested that it should be done through the Supply and Transport department. The Hon Sir Gangadhar Chitambar said that the action taken by Government was essentially desirable on political grounds. The Hon Mr Dadabhai maintained that the cultivator would not be prejudiced to any material extent. The Hon Sir Fazulbhoy Currimbhoy argued that economic theories apart the distress caused by the abnormal price of wheat had a deep political significance and it was incumbent on the Government to make an earnest attempt to keep it down. The Hon Mr Montagu urged that the less Government interfered in the trade the better and it was reasonable that existing channels of the export trade should carry on the agency of the future exports. The resolution as amended was passed.

At the meeting of March 24 the Hon Sir Ibrahim Rahimtulla moved a resolution stating that it was desirable that **State Railways** in future should be managed by the Government instead of by Managing Companies. The advantages which he expected to result from such a system were as follows—

- (1) The saving to the State of the share of profits now paid to the Managing Companies.
- (2) The development of trade and commerce on natural lines instead of the present artificial diversion by means of block rates.
- (3) The growth and development of industries especially in the interests of this country.
- (4) The promotion of inter-provincial trade.
- (5) The centralisation of control in a single State Department located in India and amenable to Indian public opinion instead of in Boards of Directors in London.

The Hon Mr Marshall Reid opposed the resolution on the ground that it involved one very important principle, namely decentralisation. Secondly because it added a great deal of responsibility to a department which was already overburdened with work. Thirdly because it aimed at reducing the power and the initiative of the managers who were primarily responsible for controlling railways. The Hon Mr Abbott also opposed the resolution because it would **kill competition**. The Hon Mr Setalvad took the same line on the ground that no State department would have the same initiative as a public company. The Hon Mr Montagu said that subject to improvements in detail the present system was the best.

The Commercial Member declined to discuss in detail the respective merits of Government or private management of railways. He said however that Government had already, with

the sanction of the Secretary of State instituted an inquiry into this matter especially in regard to the vital question of the comparative economy of the two methods of working. He was glad therefore to be able to accept the resolution but in doing so he must make it absolutely clear that they were only considering the question of the relative efficiency of the two systems of working. The resolution was adopted.

The session of the 25th March was given up to a discussion on the Budget. This discussion is a survival from the pre-reform days of the Council when specific resolutions were not moved. It is now an anachronism and ranges over such a variety of topics that a summary is impossible. The general tone of the discussion was one of approval of the Budget and particularly of the methods which had been employed to prevent the necessity of increasing taxation.

At the close of this discussion the Viceroy summed up the **work of the session**. Reviewing the military situation he said:

On every side where the Turkish forces have been engaged in fighting against the Allies they have met with reverses and the moment is rapidly approaching when if the Turkish Government are sufficiently wise they will throw the masses on the mercy of the Allies and thus save themselves from the German yoke.

As an indication of how little the so-called Turkish Government is in touch with the real sentiments of the Turkish people I may mention that a few weeks ago I saw a letter written by a resident in Constantinople in which after describing the oppression and exaction of the military authorities the confident opinion of the middle and lower classes of the Turks was expressed in the saying that it will be all right when the British fleet comes up.

As you are aware I paid a short visit to the Persian Gulf and to Basra a few weeks ago. It was a great pleasure and advantage to me to have an opportunity of inquiring into the whole economic, commercial and political situation of the province of Basra and also to visit our troops in their advanced posts within six or seven miles of the Turkish Camp which was plainly visible and to congratulate them on their prowess and splendid bearing. One could not but feel very proud of them all. I had also time to visit the hospitals in Basra and was glad to be able to verify the fact that all the sick and wounded British and Indian troops are being well and carefully tended.

As regards the province of Basra it struck me as one of **immense potentialities**. Under Turkish rule it has greatly suffered and the population of the surrounding country is consequently very sparse. At small expense the city of Basra might become a splendid port and the port of exit of all the trade of Mesopotamia and Northern Persia. Merely the tribes of the Shat el Arab have so far been cultivated, but the soil is extremely fertile and only the most elementary schemes of irrigation are required to extend indefinitely the area under cultivation. The climate is splendid and resembles that of the Northern Punjab. I cannot conceive of a country more

suitable for Indian immigration in the future when a more stable form of Government has been established. That country may then really become a garden of Eden and blossom like a rose.

You are aware of the declaration made by the British, French and Russian Governments of the inviolability of the **holy places** and of the freedom of Jeddah from attack so long as there was no interference with the Indian pilgrims. Solicitude for the welfare of pilgrims generally prompted His Majesty's Government on hearing that there was a shortage of food stuff at Jeddah and Mecca to arrange for supplies to be sent there for distribution by the Turkish authorities in spite of the protests of the Italian Consul have since for military purposes a cargo of 40,000 sacks of barley destined for the pilgrims. Until, therefore, we are able to receive some definite assurance that any further supplies that may be sent will reach their proper destination it will be impossible for His Majesty's Government to make any further similar arrangements.

On the North Western frontier the situation remains normal and although there have been attacks on our advanced posts by trans-frontier tribesmen they have been gallantly and successfully repelled by our troops, militia and tribal levies.

He then turned to a question which had excited a great deal of discussion in India—the action of the House of Lords in rejecting the proposal to establish an **executive Council for the United Provinces**. On this point he remarked: It has been with a sense of profound regret that I have learnt that an address to His Majesty the King Emperor against the draft Proclamation creating an Executive Council for the United Provinces has been carried by the House of Lords. It appears that out of a total of nearly 650 Peers the motion against the draft Proclamation was carried by 47 votes to 26. No information has been received of any similar motion in the House of Commons and we may therefore conclude that the Proclamation has not been rejected by Parliament as a whole. As you are aware the Proclamation was approved by the Governor General in Council by the Secretary of State in Council and by His Majesty's Government and in accordance with the laws was laid upon the table to both Houses of Parliament. It may seem to you as it does to me a matter of serious concern that it should be within the power of a small body of Peers who perhaps hardly realise the rate of progress made in this country during the past few years to throw out a proposition put by the Government of India and His Majesty's Government before Parliament with the full approbation of Indian public opinion. It seems clear to me under the circumstances that a modification of the law by which such procedure is possible is absolutely essential, and I trust that this will be recognised by His Majesty's Government.

"Nobody can reasonably contend that with the advance of civilisation entailing the discussion and solution of new questions

of ever-increasing complexity arising every day one-man government is better than Council Government. The principle of Executive Councils for local Governments, by which the local administration is less dependent upon the personal equation and which ensure a greater continuity of policy has already taken root in India and cannot now be eradicated. Moreover the inclusion of an Indian gentleman in the Council of a province is to my mind a source of great strength to the Governor or Lieutenant Governor. I speak from my own experience and have no hesitation in saying without any idea of flattery that the presence of my friend Sir Ali Imam on my Council and his knowledge and experience are and have been of the greatest possible advantage to me and my Government. I can well understand that all educated people of this country will be disappointed at the result of the action of a small party in the House of Lords but I would ask them not to be depressed for I regard the proceedings of the 16th March in the House of Lords as only a temporary setback and I feel as confident that the United Provinces will have its Executive Council within a very short period as that the laws will follow the night.

The activities of the Council during the current session have necessarily been circumscribed by the decision to avoid as far as possible all controversial business. Nevertheless some measures of importance have come under your consideration. I need only refer to the measure recently passed in this Council to secure the defence of India and the public safety in order to express the thanks of Government for your loyal co-operation in enacting that measure. Another Bill of importance has also been passed in this Council, namely the Assam Labour and Emigration Act which I hope will mark a stage in our efforts to remove abuses attendant on the present system of emigration and in securing that the welfare of labourers recruited to Assam is adequately safeguarded. The only other measure of importance to which I need allude is the Benares Hindu University Bill which was introduced into this Council on the 22nd. It will be a source of gratification to me if this measure becomes law during my tenure of office as Governor-General. The Council then adjourned sine die.

The Council met again at Simla on September 8th. The Indian Trusts (Amendment) Bill was introduced. The Indian Soldiers Litigation Bill providing for the special protection in respect of civil and revenue litigation of Indian soldiers serving under conditions was introduced. The Repealing and Amending Bill and the North West Frontier Constabulary Bill were introduced and the Sir Jamsetjee Jeejeebhoy Baramjee Bill was passed and the Inland Steam Vessels Bill was referred to a Select Committee. The Benares Hindu University Bill was also sent to a Select Committee. At a further meeting on September 22 The Indian Ports (Amendment) Bill was introduced as well as the Indian Medical (Bengal) Bill. The Commercial Member introduced the Buxary Trading Bill which provided facilities for the payment to a public authority of the

moneys, the payment of which was or might be prohibited owing to the present war and to provide for other matters in connection with trading with foreigners. The Repealing and Amending Bill and the Indian Soldiers Litigation Bill were passed.

The first important debate was on a motion by the Hon. Mr. Shair asking for the direct representation of India at the next Imperial Conference. The mover said that it was a source of deep disappointment as well as of profound astonishment that in spite of her prominent position in the galaxy of peoples and countries constituting the British Empire of her political, economic and strategic importance, of the obvious utility of her participation in the deliberations of the Conference and of the valuable services rendered by her to the Empire India should have been hitherto excluded from this scheme of Imperial Federation. Continuing he asked, My Lord is there a single problem of Imperial or even international interest in which India as an integral and an important part of the British Empire is not directly concerned? Is there a single Imperial question in relation to which the interests of Great Britain of the self-governing Colonies and of India are under the existing conditions not indissolubly bound together? Can any scheme of Imperial defence be regarded as complete without taking into account India's defensive requirements and her offensive capacity not only in relation to her own frontiers, but as recent events have made it abundantly clear also in connection with the military needs of the Empire in every portion of the globe? Is it possible to evolve any scheme of Imperial Preference or to introduce any workable Imperial fiscal reform without taking into consideration what may be called India's inter-Imperial interests? To these and other cognate questions there can be but one answer. India is directly and materially interested in all important problems of the Empire of which she is proud to form an integral part to the same extent and in the same degree as any other portion of His Imperial Majesty's vast dominions. India, he concluded was not content with the occasional presence of a Secretary of State at the Imperial Conference, what she wanted was her own direct representation like the British Colonies.

His Excellency the Viceroy intervening early in the debate made the following important pronouncement—

"At the Imperial Conference of 1911 the Secretary of State for India was present at a meeting but India herself had no recognised place in this Conference.

Representation is therefore, at present confined to the United Kingdom and the self-governing Dominions and no one can now attend the Conference as a representative except a Minister. Further alterations in the constitution of the Conference are made only by, and at, the Conference itself, and if precedent be followed take effect only at the next succeeding Conference. From this statement of the actual constitution of the Imperial Conference, you will see that the ultimate decision upon the representation of India at the next meeting of the Conference rests with the Con-

ference itself. It is, of course premature to consider the manner in which the representation of India, if admitted should be effected, but *prima facie* it would appear reasonable that India should be represented by the Secretary of State and one or two representatives nominated by the Secretary of State in consultation with the Viceroy such nominees being ordinarily selected from officials resident or serving in India. The present practice of the Imperial Conference excludes non-official representatives. It would of course be incumbent on those nominees to act in the Conference in conformity with the policy and wishes of the Secretary of State. Just as in the case of the self-governing Dominions the Ministers accompanying the Prime Minister have to take their policy from him and the constitutional position of the Secretary of State is infinitely superior.

I have thought it desirable to put before you all the difficulties and obstacles that present themselves to the attainment of the object that we all desire and have in view. At the same time I am authorised by His Majesty's Government while preserving their full liberty of judgment and without committing them either as to principles or details, to give an undertaking that an expression of opinion from this Imperial Legislative Council in the sense of the Resolution that is now before us will receive most careful consideration on their part as expressing the legitimate interest of the Legislative Council in an Imperial question although the ultimate decision of His Majesty's Government must necessarily depend largely on the attitude of other members of the Conference.

This is I venture to think all that we can reasonably expect at the present time and that such a pledge is eminently satisfactory as showing due consideration for the claims of India. We can only hope with trust and confidence that when the right moment arrives these claims may merit the approval and support of His Majesty's Government and receive sympathetic consideration from the Governments of the self-governing Dominions.

The resolution was very warmly approved by practically the whole Council. The only member who sounded a note of dissent was the Hon. Mr. Setalvad who said he trusted that after the war there would be such readjustments made in India itself with regard to Government that India would secure its real, namely self-government within the Empire. He therefore hoped that nothing should be done piecemeal and in hurry at this juncture. The later speakers expressed no sympathy with Mr. Setalvad's position and the resolution was unanimously passed.

The Council met again on the 1st of October when the North West Frontier Constabulary Bill and the Enemy Trading Bill and the Inland Steam Vessels (Amendment) Bill were passed. The Report of the Select Committee on the Hindu University Bill was taken into consideration and it was proposed that the Bill as amended be passed. After several speeches warmly welcoming the Bill and the attitude of Government towards it had been made the proposition was unanimously accepted.

In winding up the session His Excellency the President again reviewed the situation in India as a whole. He said—

"In India, tranquillity has prevailed and measures taken under the Defence of India Act have succeeded in restoring order in the Punjab which had been disturbed during the course of last cold weather by the return of emigrants from Canada and the United States imbued with revolutionary ideas. The powers granted under the Defence of India Act have been used with great care and discrimination by His Honour the Lieutenant-Governor and there is every reason to believe that the loyal people of the Punjab have been thoroughly satisfied with the working of the Special Tribunals created under the Act. I wish, at the same time to express my appreciation of the loyal attitude of the people of the Punjab in the assistance they have readily given to the police in hunting down these dangerous desperadoes and my admiration of the fearless and courageous devotion to duty of all ranks of the Punjab police."

On the frontier I regret to say that our posts have been repeatedly attacked by large bodies of ignorant and fanatical tribesmen from tribal territory, but in each case they have been successfully driven back with considerable losses and at the cost of a few lives amongst our own soldiers. I always regret such useless waste of the precious lives of our soldiers at the hands of these hordes of barbarous tribesmen. Nothing could have been more staunch and loyal than the attitude of our own tribesmen living within our border.

The Amir of Afghanistan has from the beginning of the war observed an attitude of strict neutrality and I have every reason to believe that it will be rigidly maintained.

In Persia the situation leaves much to be desired. Roving bands of Germans and Austrians armed with rifles and machine-guns have been wandering throughout the country trying to stir up trouble and as in the case with Turkey to provoke Persia to take hostile action against the Allies. Only recently thanks to the encouragement of German agents two British Officers and an Indian soldier were ambushed and killed by tribesmen near Bushire and the British Consul at Isfahan was fired at and slightly grazed by a bullet while his Indian orderly was killed. Owing to the insecurity in Bushire and the danger to life and property in that port our troops are in occupation of the city and with the consent of the Persian Government will remain there until steps have been taken by the latter to restore internal peace and order. We trust that such steps may not be long deferred."

In conclusion, he added, that nobody could look upon the past fourteen months of war and the part India had played in it with greater pride than he did and nobody could be more appreciative than he was of the devoted patriotism and the wholehearted loyalty of the people of India, but as the war progressed its pressure would naturally be felt more and more although the final result was beyond question. When times of pressure came they must show the world that India was united.

The Council then adjourned sine die.

Bombay Legislative Council.

The Council met at Bombay on March 13 1915 and adjourned to the 15th after passing a resolution placing on record its sense of sorrow at the death of Mr G. K. Gokhale and its appreciation of his services on the Imperial Council and the Bombay Council. The Financial Statement presented by Sir Richard Lamb showed that the war had affected provincial finance to a very limited extent. The Budget for 1915-16 opened with a balance of Rs. 151,78,000 which it is anticipated will be reduced to Rs. 1,29,01,000 by the end of the year the total revenue being estimated at Rs. 7,49,00,000 and the total expenditure at Rs. 7,71,77,000. The Bombay **certificate of heirship Bill** was withdrawn and the Bill to authorise the levy of dues on vessels for the provision of **lights on the coast of Sind** was read a third time, after the defeat of an amendment in favour of exempting from the payment of dues country craft carrying less than 70 tons.

The Hon. Mr. Hill in introducing a Bill to amend the **Bombay Protection of Pilgrims Act 1887** said this was a simple police measure designed for the immediate betterment of the conditions under which pilgrims have to proceed to the Hedjaz giving the Executive power to control the action of the shipping companies in regard to the rates of passage charged by them. The Bill was referred to a select committee and in July after some discussion was passed into law. The Hon. Mr. V. J. Patel moved a resolution recommending Government to consider the desirability of putting the Official Assignee and the Official Receiver Bombay on suitable fixed salaries. The resolution which did not commit Government to any definite line of action was accepted.

The Council met at Poona on July 12 when the revised budget was discussed. Results of the meeting were a resolution affirming the loyal support of India to the Imperial Government in the prosecution of the war and another expressing gratitude to the King Emperor for extending Lord Hardinge's term as Viceroy and for awarding him for his services on a further term of duty in his office. This being the last meeting to be attended by the Hon. Sir Richard Lamb before his retirement complimentary speeches in his honour were made.

The Hon. Sir Prabhashankar Pattani introduced a Bill to amend the **City of Bombay Municipal Act, 1888** explaining that the proposals in it emanated from the Corporation and were designed to facilitate the administration of the city. Sir Ibrahim Rahimtoola and others spoke about the compensation to be paid by the Commissioner for land acquired for a public street, holding that the Bill swung from the principle of excessive compensation to the other extreme. The Hon. Mr. Orr said that the main change of principle was the introduction of the principle of the Town Planning Act, they had accepted the recom-

mendations of expert land valuers and lawyers. The Bill was read a first time and referred to a Select Committee. It was passed at the December meeting.

A Bill to amend the **Bombay Medical Act** dealing chiefly with the register of practitioners was introduced by the Hon. Mr. W. D. Shippard and referred to a Select Committee. Sir Richard Lamb moved the second reading of the **Bombay Survey Bill** (see Indian Year Book 1914 p. 147) upon which a Select Committee had reported unanimously. The proposed levy of the survey is elicited criticism from Sir Ibrahim Rahimtoola who maintained that the burden of this liability amounting to three lakhs should not be thrown upon the citizens of Bombay in addition to the Municipal contribution. Bombay was already paying nearly 25 lakhs per annum more in the shape of Municipal taxation than Calcutta with about the same population but in Calcutta the survey fee was borne by Government. The analogy was not accepted by Sir Richard Lamb and Mr. Sarnikhael and the Bill was read a third time and passed.

Among the resolutions discussed by the Council was one in connexion with the interest charged on loans given under the Land Improvement Loans Act several members urging that Government should not make a profit on takavi transactions. A resolution by the Hon. Mr. Gokhale led to the explanation by Sir Richard Lamb of the policy of the Home Government in regard to guarantees by local Governments to their railways and the custom of the working of the Local Boards Act brought the business of the Session to a close.

At the meeting of the Council in December 1915 after passing a resolution expressing the sense of loss felt at the death of Sir Pherozeshah Mehta the **Bombay Medical Act (1912)** Amendment Bill was passed. Two new Bills were introduced and passed the **Bombay Landing and Wharfage Fees Act** the object of which is to raise a fund for the improvement of the landing places at minor ports in the Presidency by levying a small charge on each passenger travelling by vessels touching at those ports and the **Sind Courts Act (1886)** Amendment Bill, which gives the Judicial Commissioner in Sind power to deliver oral judgments. The meeting was chiefly noticeable for a discussion on a resolution which asked for an amendment of Section 11 of the **Bombay Medical Act** in such a way as to enable the Municipalities to support dispensaries conducted by ayurvedic medical practitioners. This incidentally led to a discussion on the merits or demerits of the ayurvedic system of medicine in contradistinction to the Western system. The discussion was led by the Hon. Surgeon-General Lyons supported by the Hon. Col. Jackson, whose criticisms of the ayurvedic system elicited strong protests from various Indian members.

The Madras Legislative Council.

During the year 1915, the Council had not to consider many Bills or Acts of importance but subjects of very wide interest raising large questions were discussed in the shape of resolutions. The Tirupati Devasthanam Schools Act the Hindu Transfer and Bequests Act the Madras Medical Practitioners Registration Act and the Decentralisation Act became law.

The Bills brought in by the Government and by some of the non-official members for amending certain provisions of the **Madras Estates Land Act** were not considered or taken up.

The **Madras Irrigation Bill** which roused about opposition from the non-officials was also not taken up in deference to the wish expressed as its introduction by some members and acquiesced in by the Council as a whole that no subjects of a highly controversial character should be dealt with during war time.

The **Post Puberty Marriage Bill** is still awaiting consideration. It was introduced in 1914 by the Honourable Mr V. S. Srinivasa Sastri for the purpose of declaring that marriages amongst Hindus after the girls attain the age of puberty are not invalid and are legal. A sharp controversy is still raging and the Council is daily receiving communications from various centres in the Presidency regarding the Bill. On the whole it may be said that it has met with the disapproval of the public at large, and the Honourable Mr V. S. S. Sastri is expected not to press for its consideration for some time longer. The Hindu Coparceners Partition Bill and the Hindu Limited Owners Bill introduced by the Hon. Mr M. Ramachandra Rao are yet to be considered and discussed. The latter Bill is intended to afford greater protection to purchasers of property from limited owners under Hindu law like widows, mothers, etc. who succeed by inheritance to the estates of males.

The definition of Decontamination was amended in the **Madras Abkari Act** in view of a decision of the Madras High Court so as to make it clear that the process need not result in rendering the liquor effectually and permanently unfit for human consumption.

The **Madras Port Trust Amendment Act** gave the South Indian Chamber of Commerce a right to elect two trustees to the Port Trust Board. The financial powers of the Board were increased by the provision that the Board could sanction, without reference to Government, the construction of works the cost of which does not exceed Rs. 50,000. A Bill was introduced by a non-official member to amend and define the law of intestate succession among the Moplahs governed by the Marumakkattayam or Aliya Santana Law of Inheritance. There appears to be a feeling among the enlightened members of the Moplah Community that the system of succession by sister's sons in preference to one's own children is radically vicious and opposed to the very laws of nature. It is to effect this desired change that the Bill has been brought forward.

The growth of factories in certain industrial centres of the Presidency has necessitated slight amendments in the **Madras District Municipalities Act** and a Bill brought forward by the Government for that purpose was referred to a Select Committee. It is proposed to enact that whenever a person wants to erect a steam boiler or machinery by the use of which smoke, noise or vibration would be caused, he should get permission of the Municipality within the local limits of which such factory is to be started. Municipal bodies will further be empowered to prohibit the working of such machinery between 9-30 p.m. and 5-30 a.m. A Bill proposes to amend the **Madras Civil Courts Act** by transferring larger pecuniary jurisdiction upon District Munsiffs, the quality of whose work on the whole earned the appreciation of both the public and the Government.

By far the most important Bills brought forward during the year were the three Bills to amend the **Madras Medical Registration Act** which were introduced into the Council by three different non-official members. The immediate cause of these bills was the striking off temporarily of the name of Dr. M. Krishnaswami Aiyar, a well known private medical practitioner in Madras from the Medical Register on the ground that he covered "an Ayurvedic Physician." This conduct on the part of the Medical Council created great sensation throughout the Presidency. Loud protests were heard on all sides. Some newspapers had no other theme but this for days together. There was an agitation of almost unprecedented severity against what was termed the "monstrously unjust" act of the Medical Council. The members who brought forward the Bills complained that this action on the part of the Committee of the Medical Council amounted to contempt of the Ayurvedic system of medicine and that it was contrary to the pledges given when the Medical Registration Act was passed into law to the effect that the Act would not be worked so as to mean disrespect to the indigenous system of medicine. The proposed Bills may roughly be said to provide for four things—(a) no action should be taken against any registered practitioner because of his association with Unani or Ayurvedic Systems of medicine; (b) what would amount to unprofessional or infamous conduct within the meaning of the Act should be clearly defined; (c) the committee of the Medical Council should have power only to investigate charges of unprofessional conduct. The right of passing final orders should rest with the Medical Council; (d) the Medical Council should have a Judicial Assessor to assist them to prepare their decisions. The Government in view of the volume of feeling roused in connection with Dr. Krishnaswami Aiyar's case gave leave for the introduction of these Bills without committing themselves to give their support to them.

The Resolutions ranged over a large variety of subjects. A proposal to prohibit officials from standing for election to District Boards

did not meet with the approval of the Government, but His Excellency gave an undertaking that the suggestions thrown forward in the discussion of the subject would be considered when the question of amending the Local Boards Act would be taken up by the Government. A resolution on the extension and improvement of the Criminal Settlements in the Presidency elicited a speech from Sir Harold Stuart who stated that the Government were anxious for progress in this direction. The non-official members. The Government was asked to introduce the fixed fee system in tend of the auction system in the disposal of shops but the Government argued that no case was made out for a change and the resolution was lost. The request for improve the sanitary condition of and afford Medical relief to rural areas was met by the Government with the answer that it was already doing what all it could in this respect consistent with its financial capacities. A member asked for the creation of a library for the Council at a cost of Rs. 10,000 but there was the Council Reading Room where Acts, Departmental Codes and Books of reference were available. The Secretariat Library had also been thrown open to Council Members. For these reasons the Government was not willing to accept the resolution. The Hon. Mr V S S Sastri withdrew his resolution regarding the move of the Government to the Nilgiris during summer on an appeal made to him by His Excellency who considered it in the light of past events, a highly controversial subject which was likely to create sharp divisions in the Council.

With reference to a proposal to increase the pay of District Munsiffs and Subordinate Judges, the Government stated that the subject was being considered by them. The Government had no objection to the formation of more Taluk Boards by reducing the area of their jurisdiction wherever desirable in the interests of administration. The resolution that local bodies in selected areas should be given the exclusive power of determining the number and location of arrack and toddy shops within their limits subject to revision by the Government. The Council did not command the approval of the Government as the proposal was not a suitable remedy for the evil of increase in consumption of liquor. An attempt was made to introduce the Civil Procedure Code for the Agency Tracts in the Presidency but was defeated. The Government promised to issue instructions to the effect that wherever possible, without the assistance to the work of administration clerks and revenue inspectors appointed as Sub-Magistrates should not be posted to places within whose jurisdiction they had previously served as such clerks or revenue inspectors. In framing rules under the District Municipalities Act the Government assured the Council that the number of voters would not be reduced but that higher qualifications would be insisted on for the candidates so as to secure the right sort of men to serve on Municipal Councils. A public inquiry was asked for into the increase of public expenditure in the Presidency with a view to secure economy. The Government opposed this request and contended, that the inquiry would serve no

purpose as admittedly there was no extravagance in public expenditure. The Council was asked to approve of the appointment of a committee to advise as to the measures necessary for the proper establishment of village panchayats as suggested by the Decentralisation Commission, with larger judicial functions a purer system of elections and increased financial power. In response to this request Sir Harold Stuart announced that the Government had under contemplation the bringing in of a Bill to create village panchayats with judicial powers in petty civil and criminal cases. Five seven or nine villagers commanding confidence would sit as a Bench with three as quorum. Their civil jurisdiction would be appreciably increased though the system of the village munsiff sitting singly to hear certain classes of cases would not be abolished. The village magistrates powers would be transferred to these panchayats which would be set up in each village or convenient group of villages. The announcement of the intention of the Government to propose in the immediate future legislation on these lines was received with satisfaction by the whole council. A resolution to make primary education free and compulsory in certain selected Municipal areas was rejected at the opposition of Government who strongly urged the financial aspect of the question. The Government was not unwilling to consider whenever opportunity permitted the question of making research into and investigation of the value of indigenous Indian drugs. It was also urged that the Government should choose non-official Presidents for District Boards and that the Sanitary Board should be reorganised and its functions enlarged so as to include the non-official element as in other provinces of India. The Ceylon Quarantine Regulations for passengers going from India to Ceylon which made invalid distinctions between Europeans and Indians and subjected third class passengers to numerous hardships and indignities were criticised by a number of members. The Government announced that they had opened up negotiations with the Ceylon Government on the subject and they expected to arrive at a satisfactory settlement.

The Council debates brought to light some legislation that may be introduced by Government in the coming year. The Village Panchayat Bill has already been referred to. There is every chance of a Bill being brought forward to prohibit smoking by Children. The Local Boards Act would be amended in several important respects so as to extend further the elective principle. Madras Regulation XI of 1916 which deals with the punishment to be awarded to villagers for the commission of petty offences, such as using abusive language, minor assaults and affrays would come in for much modification. The entire question of punishment would be revised and a scheme would be devised to make the punishments suitable to people that are generally brought up before such village Courts. In all probability, the punishment of putting the offender in stocks, if he belongs to one of the lower castes of the people, would be done away with and the offensive distinction between caste and caste made in the present regulation would be removed.

Bengal Legislative Council.

The greater part of the sittings of the Bengal Legislative Council during 1915 was occupied with discussions on the Budget during which attention was drawn to a great variety of topics. A resolution was moved in favour of the improvement of primary education and another for the promotion of female education in Calcutta. In both cases the resolution was refused by Government on the ground that funds were not available. The question of Mahomedan education was vigorously pressed by Maulvi A. B. Fazal Luq and others a complaint being made that unnecessary delay had occurred in providing an Arts college for Mahomedan students and also in erecting a hostel in College Square. Mr. Hornell pleaded that the delay was inevitable that it had resulted in a better scheme and that the work would be taken up as soon as an opportunity offered. Perhaps the topic which was most frequently mooted was that of the **Industrial development of Bengal**. Mr. Radha Charan Pal especially urged the necessity of taking action on the report prepared by Mr. Swan. In his reply Mr. Beason Bell said that Government were willing and anxious to do what was possible and that they had asked the Government of India to obtain an expert Director of Industries. The question of industrial development was again raised at a sitting of the Legislative Council in Dacca when Mr. Surendra Nath Banerjee moved that this Council recommends to the Governor in Council that the necessary measures be taken as soon as it may be convenient to give effect to the recommendations made by

Mr. Swan in his report on the industrial development of Bengal. He urged that the encouragement of Government might take a more active form than it has hitherto done, and declared that the whole of the educated community was protectionist. Mr. Beason Bell on behalf of the Government accepted the resolution. He gave two instances to show how difficult it was for Government to get into touch with the market. One was an attempt by the Inspector General of Prisons to get in India the glass tubes in which Government quinine is sold. The second was the difficulty experienced by Lord Carmichael in discovering in what place in India certain silk handkerchiefs were made which he had been accustomed to buy in Edinburgh. Mr. Beason Bell then referred to various industries and urged that they should be dealt with in a more practical spirit, those experiments being abandoned which had apparently been proved to be unsuitable for Bengal such as the manufacture of glass and pencil making. Mr. Beason Bell again referred to the application made by the Government of Bengal for a Director of Industries. He would like to see an expert appointed with large funds and a free hand.

A motion by Mr. Surendra Nath Roy that a **City Civil Court**, separate from the Calcutta High Court, be established in Calcutta for the trial of suits valued at Rs. 10,000 or under was strongly opposed by the barrister members of the Council, but, on a division was carried by 13 votes to 10 the official members abstaining from recording their votes.

The United Provinces Legislative Council.

The Council met at Lucknow on 17th February 1915 Sir James Meston presiding. After a resolution moved by the Hon. Mr. Khwaja Ghulam us Saqlain expressing deep regret at the death of Lieutenant the Hon. Mr. Edward Hardinge and submitting the respectful condolences of the Council to his Excellency the Viceroy the following resolution was proposed by the Hon. Mr. Raja Sr. Sheoraj Singh. This Council places on record its sense of deep sorrow for the loss that the Empire has sustained by the death of Field Marshal Lord Roberts, that great veteran of India who has earned an undying name by his splendid services and heroic character and requests the Lieutenant-Governor to offer its heartfelt sympathy to Countess Roberts and other members of the late Field Marshal's family

in their sad bereavement. In addition to the mover other members spoke on the loss the Empire had sustained by the death of Field Marshal Roberts. The Hon. Khwaja Ghulam us Saqlain then proposed. In view of the European War and rumours connected with the War this Council recommends that his Honour the Lieutenant-Governor may be pleased to take such urgent measures as may be possible that the dealers in grains may not be allowed to take unfair advantage of the situation, and that the price of food grains may not be raised beyond reasonable limits. Mr. Pim in reply said it was well to examine what stocks there were in the Province when the war commenced. The war started when the Province had not recovered from a recent famine. Stocks were at a low level in August and it

was natural that prices would rise till the taking in of the kharif. Then war broke out and prices were affected. There was a steady rise since July, except in November but the rise was in wheat 55 per cent and retail 40 per cent, barley only 8 per cent gram 11 per cent dhal 12½ per cent. The mover's figures for England were not in accordance with those given by the Prime Minister. The price of flour was about equivalent to 6 seers to the rupee. The short age of wheat owing to several causes was a reality almost every district in India reported shortage till the kharif was reaped. Most districts reported that it was not bumsas who had hoarded stocks but cultivators. High prices assisted the cultivator in paying his debts and he needed help. A good kharif had been followed by an easing of prices and the recent good rain it was hoped would further reduce rates. The mover had said that action by Government was necessary. Mr. Pim called attention to the attempt by Germany to fix prices—the result was disastrous and the German Government had been forced to attempt an organisation of the supply of good grains for the nation. The resolution was lost.

At the session on 15th March, the Hon. Mr. Pim in introducing the provincial financial statement for 1915-16 said entirely unprecedented conditions had introduced an even larger share of guess work into the estimates and he asked for cheerful co-operation with the Government of India in securing economy and thereby taking a share if a small one in the financing of the war. Features of the Budget were the unusually heavy expenditure on establishments caused by the restriction of leave and the heavy expenditure which was expected to continue for a part at any rate of the year under all heads affected by the prices of grain including more especially grain compensation allowance and dietary expenditure of all kinds. A preliminary provision of Rs. 2,25,000 was made for grain compensation allowance, and a welcome feature was the provision of Rs. 70,000 for assistance to indigenous industries which have been badly hit by the war.

At the meeting on 19th July the **Municipal Bill**, the object of which is to consolidate the Municipal law which is at present contained in four separate enactments and five amending Acts, was introduced by Mr. Pim. Before the Bill, which has been a considerable time under preparation was referred to a Select Committee one or two members referred to its proposals. Mr. Raza Ali trusted that the question of Mahomedan representation would be settled in select committee and Mr. Moïlal Nehru speaking for himself was in agreement with the suggestion. He said there was not a Council meeting at which questions were not put relating to this matter and he thought if the questions were decided once for all, both communities would be able to settle down to work for the country's good. Mr. Pim, in reply to the discussion, pointed out that executive officers would only be appointed to Municipalities where work was heavy. Referring to the burden of administrative details resting on the chairman in the large municipal bodies, he said: "As Members know, none of the first class municipalities has as yet a

non official chairman, but even in those of the second class the experience has been that a non-official chairman can only carry on the administration at a great sacrifice of his private interests. Public spirited gentlemen have been found willing to make this sacrifice, but as a permanency such a system cannot work and in the larger municipalities it would exclude from the field of possible chairmen nearly all the ablest citizens who might otherwise look forward to this goal of their ambition but who would not be able to give up all their other interests. Further relief in dealing with the current details of executive work must therefore be afforded if as we all wish the best available talent may be enlisted in aid of local self government. The Lieutenant Governor is strongly of opinion that this assistance can best be afforded on the lines recommended by the Royal Commission on Decentralization namely that in the larger municipalities the details of executive administration should be vested in a full time officer subject to the control of the board. Even in these municipalities however the Local Government does not consider it necessary or desirable to introduce the complete separation of deliberative and executive functions which characterise the Bombay Corporation Act and still less does it desire to give such powers to the executive officer as would render him able to dominate the board or the chairman or to take up any other position than that of the right hand of the chairman in carrying out the details of municipal administration. The **Bundelkhand Encumbered Estates Law Amendment Bill** and the **Bundelkhand Alienation of Land Law Amendment Bill**, extending the application of these measures were passed. In reply to a resolution it was announced that the Lieutenant Governor was considering the representation of the Hamirpur Division in the Council.

At the meeting on 5th October the **Kaswar Raja's Bill**, a non-controversial measure concerning the land tenure laws in the pargana of Kaswar Raja (a portion of the family domains of the Maharaja of Benares outside the boundary of the State in which the Maharaja has ruling powers) was passed. A proposal by the Hon. Lala Sukhlal Singh that the Government should be recommended to take steps to improve horticulture and arboriculture as well as fruit and vegetable culture was passed and accepted by Government. The resolution suggested the organisation of a separate Government department to deal with the subject but Mr. Burn the Chief Secretary gave adequate reasons why the Government could not approve of such a course. The Hon. Lala Sukhlal Singh revived the question of the organisation of village panchayats to settle petty civil and criminal disputes and to look after sanitation roads and such like matters. His resolution on the subject was passed and Mr. Burn gave the assurance that Government had not been overlooking the matter and that in the cold weather a committee would be appointed to consider it. A number of amendments to the rules for the conduct of the business of the Council were passed on the motion of Mr. Burn. These amendments make it necessary for members to give two months notice of Bills they wish to introduce.

Punjab Legislative Council

The proceedings of the Punjab Legislative Council during 1915 reflected the influence of the war in that all legislation of a definitely controversial nature was postponed and even in the discussions which arose there was little of the usual controversial element. At the first meeting of the year on March 13th the Hon. Mr. Mont presented the revised financial statement for 1915-16. It disclosed a financial situation which was more satisfactory than might have been expected in view of all the circumstances. For 1914-15 the revenue was larger and the expenditure smaller than had been estimated. The Budget anticipated a deficit of 44 lakhs which was to be met from provincial balances. These balances amounted to over 49 lakhs of which only six were hypothecated to special purposes. The Budget had of course been influenced by the war. The dislocation of trade had depressed the price of cotton to the disadvantage of agriculturists, while the rise in the price of food stuffs had benefited them. Sales of agricultural land had been affected by the financial depression caused by the war while exchequer receipts had fallen off partly owing to the absence of a considerable number of troops from the Punjab.

On the expenditure side the high price of foodstuffs had made a serious drain on provincial resources, the grant of **grain compensation allowance** having cost nearly five lakhs in 1914-15. In the new Budget 14 lakhs was put down for this item. Mr. Mont explained in detail the arrangement by which a crore of rupees had been taken from the provincial revenues and surrendered to the Government of India in return for a recurring assignment of 4 lakhs. But briefly the Provincial Government owing to abnormal receipts from the sale of land had more money than it could profitably spend at the moment and had in effect purchased a permanent annuity from the Government of India at the rate of 1 per cent. The permanence of this assignment had been carefully safeguarded and would represent a source of income to the province that would not be affected by future revisions of the financial arrangements between the Government of India and the Punjab. The 34 lakhs would represent interest on invested capital and the province instead of spending lavishly for a few years had acquired a permanent source of income for the benefit of posterity.

At the meeting of the Council on April 22nd the main business was the **discussion of the Budget**. An unusual and interesting point of etiquette arose at the commencement of the session. The Hon. Mr. Barron (Chief Secretary) called attention to the conduct of a non-official member who had caused the publication in a newspaper of a list of questions which had been disallowed by His Honour the President. The member in question apologised for his breach of etiquette and His Honour, accepting the apology, said a stop must be put to this undesirable practice. The Hon. Mr. Barron also introduced amended rules for the conduct of business in the Council. The main provision of the new rules was to the effect that a non-official member must give at least two months' notice of his

intention to introduce a Bill. Two months was the period that must elapse between the submission of an official Bill and any further proceedings in connection with it in order that the Secretary of State might have time to peruse the Bill and make any observations that he considered desirable. The Hon. Mr. Thompson, Revenue Secretary, introduced the **Punjab Military Transport Bill** which was referred to a select committee. The Bill was designed to supersede the Punjab Military Transport Animals Act of 1903. The main differences between the new Bill and that Act were (1) the abolition of the system of registering animals and carts, (2) the introduction of more expeditious methods of acquisition, (3) provision for the sale custody of loads which were being carried by animals at the time of their apprehension, and (4) provision for permitting camels to be hired for service beyond the limits of India (owing to the difficulty of obtaining trained **sarwanis**, since the latter usually went with their animal when hired but not when purchased). The Hon. Rai Bahadur Pannu Sahai Das moved a resolution to the effect that at least 20 per cent of the total sale proceeds of **Government waste lands** in canal colonies should be earmarked for the provision of more effective sanitary arrangements for drainage, water supply, communications and model dwellings in the new colonies. In the course of his speech the mover dwelt on the defective sanitary arrangements in the canal colonies. The Hon. Mr. Muhammad Shah pointed out that it was more important to introduce sanitary improvements in the old towns and villages than in the new colony areas. The Hon. Sir Michael Denton opposed the resolution on the grounds that earmarking revenue was opposed to financial rules that experience in the old colonies did not justify the assumption that Government neglected or would neglect the interests of the new colonies. That district fund resources in the new colonies were far in excess of those of non-colony districts and finally that the geographical principle in the distribution of contributions from the public exchequer had never been recognised by Government. He also pointed out that the local government only received 50 per cent of the sale proceeds of waste land so that the 20 per cent mentioned in the resolution would mean 40 per cent of the local government's share. The Hon. Mr. Mount, Financial Secretary, also criticised the resolution as unsound in principle and as bound to be futile in its effects. His Honour the President pointed out that it was not the case that sanitary arrangements in the new colonies were so defective that it was necessary to make special arrangements to remove those defects. The mover then withdrew his resolution.

A lengthy discussion then ensued on the Budget for 1915-16 in which most of the non-official members took part. In general the Financial Secretary was congratulated on his Budget and approval was expressed by most members of the surrender of one crore to Imperial revenues in return for a permanent assignment of 34 lakhs. The Hon. Mr. Muham-

and Ghaff and other speakers referred to the aspirations of the province in the matter of a High Court and an Executive Council. In summing up the debate Sir Michael O'Dwyer dwelt on the prosperous state of the provincial finances and on the many calls that were being made on them for larger expenditure in all directions. He spoke of the far-reaching effects of the war and of the economic distress caused by the rise in the prices of food grains. Dealing with the alleged conspiracy of returned emigrants to subvert the Government and the outbreak of lawlessness in the Western Punjab he described the measures taken to cope with lawlessness. Government, he affirmed, could face these outbreaks with equanimity because they had proof that the overwhelming majority of the people of all classes and creeds were determined to support them in quelling the disorder. Finally His Honour declared that the real temper of the people was shown by the splendid way in which Mahomedans, Sikhs and Hindus alike had rallied to the call of the Empire and were shedding their blood in its defence.

At the 51st meeting of the Council on September 25th the amended rules for the conduct of business introduced at the last meeting were passed. The Military Transport Bill was also passed. The Hon. Mr. Thompson introduced the **Medical Practitioners Registration Bill**. The main feature of the Bill was the institution of a Medical Council of twelve half to be nominated by Government and half to be elected by registered practitioners. The main duty of the Council would be to keep a register of practitioners who in its opinion were properly qualified as western medical men and surgeons and it would have power subject to an appeal to Government to remove the names of those who had been convicted of offences or have been found guilty after inquiry of infamous conduct in any professional respect. It would also be made a punishable offence for a person falsely to pretend that he was a registered practitioner. The Bill did not interfere with **bhakims** and **vaidas** and did not prohibit practice by unregistered practitioners. It was referred to a Select Committee. The Lieutenant Governor closed the session in a powerful speech in which he reviewed

the condition of the province. He said the season's monsoon had been the worst known since 1877. Fortunately timely rain had fallen all over the Province except the Rawalpindi and Multan divisions and had averted the situation at a most critical time. Turning to the question of public security he referred to the measures taken to meet the sudden outbreaks of disorder in the south west and reviewed the **revolutionary movement** of returned emigrants. He said that the crime committed all over the Central Punjab from November 1914 to July 1915—and they had not yet ceased—created a state not only of alarm and insecurity but in some cases of terror and even panic and if they had not been promptly checked by the firm hand of authority and the active co-operation of the people would have produced in the province as was intended by the conspirators a state of affairs similar to that of Hindustan in the Mutiny—paralysis of authority, widespread terrorism, mutiny of troops, wholesale robbery and murder not only of the officers of Government but of loyal and well-disposed subjects. He went on to point out that though most of the conspirators were Sikhs they were in no way representative of the Sikh community which had given such signal proofs of its valour and devotion in this war. The conspirators had been publicly disowned and repudiated by that community and it was the active help given by Sikhs throughout the province and by the authorities of Sikh states that enabled so many of the criminals to be brought to justice. Of 6,000 returned emigrants His Honour said 250 believed to be the most dangerous had been temporarily interned as civil prisoners, 1,700 had been restricted to their villages or put on security and 4,000 had been allowed complete liberty of movement. In conclusion Sir Michael O'Dwyer spoke of the great part the martial races of the Punjab were taking in the war. Almost half the troops sent overseas were Punjabis and of 80,000 recruits added to the Indian Army since the beginning of the war 44,000 were from the Punjab.

During the year the Council lost a valued unofficial member through the death of Sir Arthur Ker and another member, Sirdar Daljit Singh, relinquished his seat on appointment to the Council of India.

Burma Legislative Council.

The legislative harvest for the year was very small. This was natural in the special circumstances caused by the war and the impending retirement of the Lieutenant Governor in the interval between the end of the financial year and the departure of Sir Harvey Adamson at the end of October, the period covered by the extension of Sir Harvey's service. No new bill was introduced though there was a certain amount of preliminary work carried out in connection with measures to be discussed later.

The 32nd meeting of the Council took place on March 12th when the Hon. Mr. Blae introduced the **Burma Medical Bill**, which follows the lines of similar measures enacted

in Bombay, Madras and Bengal. The Bill provides for the registration of duly qualified medical practitioners. It also renders registered practitioners subject to the control of a medical Council made up of five members elected by the resident registered practitioners and four including the President nominated by the Local Government. The Council will have full control over the Registrar to be appointed and an appeal lies to it from any refusal of the Registrar to register an applicant. The Council has also the power to strike off the register any member who has been convicted of a cognisable offence or who has been found guilty of infamous professional conduct after due inquiry by the Council. An appeal is allowed

from the decision of the Council to the Local Government. Persons eligible for registration fall into three classes: those registered or qualified to be registered under the Medical Acts; those holding medical degrees of one of the five Indian Universities; and those who have been trained in a Government Medical School and are qualified as military assistant surgeons or sub-assistant surgeons or Hospital assistants. The Bill was referred to a Select Committee.

Then the Hon. Mr. Keith presented the Revised Financial Statement. He reminded the Council of the Revised Financial Statement for the previous year and stated that an estimate based on the income and expenditure of ten months four of peace and six under war conditions showed a deficit of Rs. 38.85 lakhs. This deficit was to be met by a reduction to expenditure of Rs. 31.92 lakhs and the depletion of the balance by Rs. 7.53 lakhs. As the original estimates provided for the expenditure of Rs. 47.70 lakhs out of the opening balance of Rs. 186.75 lakhs the balance was thus to be lowered by Rs. 65.23 lakhs in all and would stand at Rs. 84.18 at the opening of the year 1915-16. The proposals for that year involved an expenditure of Rs. 582.27 lakhs with an income of Rs. 568.42 lakhs. This expenditure was less than the original estimate for the previous year of Rs. 627.92 lakhs by Rs. 59.50 lakhs and Rs. 14.34 lakhs less than the Revised Estimate of Rs. 596.90 lakhs but nearly 10 lakhs more than the actual of 1914-15. The deficit was to be met out of the opening balance which was thus reduced by a further Rs. 19.85 lakhs to Rs. 70.28 lakhs of which Rs. 26.49 lakhs were set marked for special purposes. The proposal was to be compensated on not having been compelled to adopt more rigorous retrenchment and on the permanent addition of Rs. 15.11 lakhs to its income in the form of a recurring assignment from the Imperial Budget.

As this was the first meeting of the Council since the outbreak of the war the Hon. Mr. Hosain moved that this Council records its deep conviction of the righteousness of the cause of Great Britain in the present war and assures His Majesty's Government of the unwavering loyalty and devotion to the British throne of all communities and classes in Burma. In his speech the mover of the resolution mentioned the great disappointment and pain caused to the Mussalmans by Turkey's participation in the war on the side of Germany and Austria and expressed the opinion that this course of action was the work of a small minority of the officials and that the majority including the Sultan and the Crown Prince were averse from war. The motion was seconded by the Hon. Mr. Cowasjee who pointed out one redeeming feature in connection with the war. It had caused a tremendous wave of loyalty to sweep over the whole Empire, especially India, and illustrated to the whole world the immense solidarity of the British Empire. The honourable gentleman expressed his sense of deep obligation to the British Navy for the efficiency with which it had cleared the seas of the enemy's ships and enabled commerce to proceed without interruption almost as safely as in time of peace. His Honour the President supported the resolution in a speech in which

he took a reasoned, hopeful view of the prospects of the allies and regretted the success of German machinations in estranging our old ally Turkey.

The meeting of the Council on April 3rd considered the report of the Select Committee on the Burma Medical Bill. No amendments of a drastic nature were suggested. In the discussion on the Bill the Hon. Mr. Du Bera proposed that the proceedings of any inquiry under this Act into the conduct of a registered practitioner should be reduced to writing and contain a full statement of the charge, documents and evidence in support and in refutation of the charge, the defence and the Council's decision. This amendment was accepted. A proposal by the Hon. Mr. Douglas to compel those registered under the Medical Acts to register under this Act also was not approved. The bill was then passed.

The Hon. Mr. Keith presented to the Council the sanctioned Budget Estimates of the Province for the year 1915-16. A general discussion of the Budget took place at the third meeting of the Council on April 6th 1915. The Hon. Mr. Hosain noticed the backward state of Mahomedan education which he said had been made the theme of a good deal of platform oratory and literary effusion of popularly hunters all over India as a means of self advertisement, but no progress commensurate with the magnitude of the situation had been achieved. The Hon. Mr. Cowasjee pointed out that while the price of timber had risen in ten years by more than 80 per cent the Forest Revenue had risen in the same period by less than 10 per cent. As a remedy he suggested an extension of the operations of the Forest Department in the extraction of timber which at present is mainly in the hands of private firms holding leases. The Hon. Maung Pherreferred to the increase of crime in Burma and suggested a return to the village system. The police, he said, were not beloved of the people, the people themselves should be taken into the confidence of the Government and should be given powers within their respective village tracts to preserve peace and order and to bring offenders to justice.

The Hon. Mr. Du Bera discussed the expenditure on education for the past ten years. He suggested that it would be interesting to know how much of the heavy annual expenditure from various sources was divided amongst Primary Vernacular, Primary Anglo-Vernacular, Secondary and Higher University Education, and also on various forms of Technical Education. He expressed dissatisfaction with the results of Anglo-Vernacular Education and asked whether it was not time to fix a maximum expenditure from public funds on higher education and apply the available balance to primary vernacular education. The Hon. Mr. Eke pointed out that under the Burma Village Act the headman had ample powers and the duty of assisting him was imposed on all inhabitants of the village tracts. It was the consistent policy of the Government to encourage headmen to exercise these powers and they did in fact give invaluable assistance in the prevention and detection of crime. The Hon. Mr. Keith explained the system under which forests were leased to private firms at a fixed rate of royalty for fifteen years with the right of

renewal on revised terms for another fifteen years. Thus Government did not get the benefit as one of a rise in the price of timber but on the other hand it was guarded against a loss when the price fell. A scheme for the strengthening of the forest establishment was under preparation.

His Honour the President briefly reviewed the effects of the war on the industries and finances of the province and found cause for congratulation in the fact that the detrimental effects had been far less serious than might have been anticipated. The worst sufferers from the war had been the rubber planters of Mokok many of whom had been compelled to migrate and find subsistence elsewhere. The chief inconvenience to the province as a whole was the shortage of shipping and the high rates of freight. But Burma bore this inconvenience with other parts of the Empire as the inevitable consequence of a great war.

The Council then adjourned *sine die*.

Though the Burma Medical Bill, No. 1 of 1915 is the only legislative outcome of the Council's discussions there are several measures in course of preparation including a Water Hyacinth Bill, an Excise Bill, a Salt Bill, and a Prevention of Inoculation Bill. The first Bill will deal with the extinction of a weed introduced by Chinamen to Burma in recent years which threatens to choke canals and navigable creeks in many parts of the Delta. The last is designed to put a stop to an old and dangerous Burmese practice which serves no useful purpose since the discovery of vaccination as a prevention of small pox.

A Burma **Wolfram Ordinance** is under consideration. This is a war measure intended to facilitate the supply of labour to the mines and increase the output of the tungsten ores that are required in exceptional quantities for the purposes of the war.

Bihar Legislative Council.

The Council met on January the 19th when His Honour the Lieutenant Governor referred to the splendid loyalty of the Province. The Hon. Mr. Bihari Prasad moved a resolution expressing to the King Emperor the unqualified loyalty of the people of the Province and the sense of full support to the just and righteous war which Britain had been compelled to undertake also of gratification at the employment of Indian troops. The resolution was unanimously carried. In reply to questions it was stated that the main buildings under construction for New Capital are Government House and Council Chamber the Secretariat the Post and Telegraph Offices and the High Court. The foundations of these buildings had been finished and work on the superstructure was well advanced.

On March 13th the Hon. Mr. Gait presented the revised financial statement. He said that owing to the war they had been asked by the Government of India to restrict their expenditure as much as possible whilst next year they had been permitted to draw on their balances only to the extent of 33 lakhs. The greater part of this expenditure would be on the erection of buildings in the new capital. Measures which they were on the point of introducing, including the scheme for the reorganisation of the excise department and a more liberal system of scholarships in schools and colleges, had thus necessarily been postponed. Owing to the dislocation which had thus been caused it had been decided to postpone for the present the revision of their provisional financial settlement which would otherwise have been made with a view to the introduction of a permanent settlement with effect from the commencement of the coming financial year. On April 7th the Hon. Mr. Brijkishore Prasad moved a resolution asking for the appointment of a committee to inquire into the strained relations between *planners and ryots*. The Hon. Mr. Levinge said that Government were awaiting reports from the Board of Revenue and the Survey Settlement Officer on the subject. The resolution was negatived. The Hon. Mr. Brijkishore Prasad and

that the privilege of electing the chairman might be extended to some of the municipalities which it had not existed and that Government should issue instructions encouraging the election of non-officials as chairmen. The Hon. Mr. Mahabir Singh accepted the first part of the resolution but opposed the second portion.

When the Council reassembled on September 8th the Hon. Mr. Levinge moved for leave to introduce the Bihar and Orissa **Cess (Amendment) Bill 1915**. He said the primary object of this Bill was to give effect to recent orders of the Secretary of State placing the proceeds of the Public Works Cess which have hitherto been paid to Government account in district treasuries at the disposal of district boards and district committees. The Hon. Mr. Levinge next asked for leave to introduce the Bihar and Orissa **Excise Bill 1915**. He said that early in 1912 the Government of India remarked on the increase in the number of excise prosecutions reported from the United Provinces in 1911 and in the number of convictions for offences relating to opium in Bengal which then included Bihar and Orissa and they drew the attention of the Government of the United Provinces and Bengal to the inadequacy of the penalties provided by the local acts in force. The question of amending the Act in the manner suggested was taken up and it was realised that it would be more convenient that the Province should have an Excise Act of its own. The Bill was introduced and referred to a select committee. The Hon. Mr. Edward Gait introduced the **Patna Administration Bill 1915** and it was referred to a Select Committee. The Hon. Mr. Edward Gait also moved for leave to introduce the Bihar and Orissa **Medical Bill 1915** which was referred to a Select Committee. Several members then addressed farewell speeches to His Honour the President who is leaving India. In his reply the President referred to the need for co-operation which would be manifested during the next year or two in this as in every other province owing to the period of financial stringency which was in store.

The Public Trustee.

The Public Trustee of England is a Government Official created by Statute (Public Trustee Act, 1906) whereby the State acts as an executor or as a trustee under Wills and as a trustee under Settlements whether these Instruments are new or old and in other offices of an analogous character.

The office has been a great success in the seven years that it has been open the value of the trusts in course of administration have amounted in round figures to £50 000 000 while the estimated value of Wills lodged in the Department which have yet to mature is put at some £59 000 000 showing a total value of business of all kinds negotiated at £110 000 000.

Fees chargeable.—The office is now entirely self supporting and is no charge upon the tax payer. A provision of the Statute declares that the Office is to make no profit but to charge only such fees as may provide the working expenses and constitute a reserve fund against the liabilities assumed by the State for breach of trust. In accordance with this mutual principle the fees have already been reduced from their original scale and the cash surplus of fees over expenses regarded as the nucleus of a reserve fund for all contingencies is now £14 585.

The main fees are of two kinds—a fee on capital and a fee on income. The fees on capital are taken in two instalments—an instalment of half taken at the beginning and an other instalment of half taken at the end of a trust—each instalment being calculated at the following rates—

On the first £1 000 fifteen shillings per cent.

On the excess of £1 000 to £20 000 five shillings per cent.

On the excess of £20 000 to £50 000 two shillings and six pence per cent.

On the excess of £50 000 one shilling and three pence per cent. The **Fee on income** is one per cent if as is usual the income be paid direct from its source to the person entitled on any income in excess of £2 000 a year the fee is only $\frac{1}{2}$ per cent. Where the income is paid through the Department then the fee is two per cent. up to £500 a year and one per cent on any excess of £500 a year and $\frac{1}{2}$ per cent on income in excess of £2 000 a year. The fee on investment is $\frac{1}{2}$ per cent. The Public Trustee, out of this fee paying the brokerage. There is power to vary these fees to meet the peculiar circumstances of special cases but owing to the low range of the fees and their mutual character the power of reduction is but seldom exercised except perhaps in the case of large trusts.

The Department has been organised upon lines followed by commercial organisations. Forms are avoided wherever possible the methods of the Office prescribing prompt attention to all matters within the day.

The particulars of any trust in which it is desired that the Public Trustee should act may be brought to his notice by letter or by personal interview and upon his assent being obtained, his appointment should be effected in the ordinary way as in the case of private trustees. In the case of a Will about to be made his appointment can be secured by the simple provision I appoint the Public Trustee of England as the executor and trustee of this my Will.

One of the forms of trusteeship which would appeal to English people residing in India is a scheme known as a **Declaration of Trust**. An official pamphlet explains that the Public Trustee's services have been requested by people who either because of professional or business pre-occupation or from want of experience in dealing with money matters or from the disadvantages which might attach to Governmental professional or business disabilities abroad, are not well placed to select and supervise their investments. It would appear that the services of the Department in this matter were first regulated by officers taking up appointments in India and following out their request for individual assistance, this scheme of trust came to be devised, and has been found to commend itself to the circumstances of a very large circle of persons similarly disadvantaged. A Declaration of Trust is an **inexpensive form of trusteeship** by virtue of which the owner practically retains full control over his capital. The property is made over to the Public Trustee either in the form of money to be invested or specific securities transferred into his name and thereupon the Public Trustee executes a short "declaration" setting out that he holds the money invested or the securities in trust for the transferor. The result of this is that income as it accrues, is paid to the owner or to any beneficiary as he may direct. A wide field of investment is permissible as the trust provides that the funds may be invested as the owner may from time to time direct. As the pamphlet sets out interest at the rate of at least 4 per cent is to be looked for under the scheme from investments of a non-speculative character. It should be understood that this form of trusteeship is not analogous to a bank deposit, where the return of the capital at par given the solvency of the bank is expected. Investments are selected with the greatest care in consultation with the owner but it must be understood that the Public Trustee does not accept responsibility for any fluctuation of any of the investments chosen. The fees payable for this scheme of trusteeship so far as the capital fees are concerned are half those payable in the case of an ordinary settlement. The other fees are the same as the ordinary fees.

The appointment of the Public Trustee secures certain definite advantages inasmuch as he is by Act of Parliament a Corporation Sole and thus it is said the Public Trustee never dies, so that the expense of appointment of other Trustees is permanently avoided. His

integrity is guaranteed by the State while the measure of his success would indicate that he is necessarily experienced and skilled in his duties.

Close personal attention is given by the Public Trustee and his senior officials to the details of every trust and as regards the work of investment a large organisation has been set up to give the best consideration not only to the selection of investments but to the duty of keeping them under frequent observation.

An Advisory Committee of men of recognised authority has in the past year been appointed by the Lord Chancellor to assist the Public Trustee by a quarterly review of the investments made. In the last Annual Report the Public Trustee speaks of having secured a return of £3 19 4 per cent upon his trustee investments and a return of £4 10 1 per cent upon his non trustee investments.

The success of the Department would seem to show that there is a widespread public need in England for such an Office, and the energy and efficiency with which the Department has been constituted and conducted has been a great factor in commending it to the public. The State guarantee is also doubtless a factor of great importance. A statutory rule pro-

vides that strict secrecy shall be observed in respect of all trusts administered in the Department.

The administration is subject to an audit by the Controller and Auditor General (the Government Auditor) while the internal organisation has been built up upon the principle of a check and counter check upon the administration.

An important section of the Statute gives the Public Trustee power to direct an audit and investigation of the condition and accounts of any trust.

Officials in India will doubtless tend to make an increasing use of the Department. As a Government Office its stability will commend itself to them as a medium to safeguard their interests under Wills or Settlements which can be entirely relied upon and free from the risks and expense attendant upon any other forms of trusteeship.

Further information upon details and copies of the official pamphlet reports and rules etc. can be obtained of the official agents to the Department viz.—Messrs King Hamilton & Co. Calcutta and in Bombay Messrs King King & Co. whose head office is Messrs Henry S. King & Co. 41 Cornhill London, E. C.

PROVING OF WILLS.

In British India if a person has been appointed executor of the will of a deceased person it is always advisable to prove the will as early as possible. If the will is in a vernacular it has to be officially translated into English. A petition is then prepared praying for the grant of probate of the will. All the property left by the deceased has to be disclosed in a schedule to be annexed to the petition. The values of immovable properties are usually assessed at 167 years purchase on the net Municipal assessment for estate under Rs. 10,000 the probate duty payable is 2% between Rs. 10,000 and Rs. 50,000 the duty payable is 2½%. Over 50,000 rupees the duty payable is 3%. In determining the amount of the value of the estate for the purposes of probate duty the following items are allowed to be deducted:—

- 1 Debts left by the deceased including mortgage encumbrances.

- 2 The amount of funeral expenses.

- 3 Property held by the deceased in trust and not beneficially or with general power to confer a beneficial interest.

The particulars of all these items have to be stated in a separate schedule. It is the practice of the High Court to send a copy of these schedules to the Revenue authorities and if the properties, particularly immovable properties have not been properly valued, the Revenue department require the petition to be amended accordingly. In certain cases the Court then requires citations to be published and served on such persons as the Court thinks are interested in the question of the grant of probate. If no objection is lodged by any person so interested within 14 days after the publication or service of citation and if the will is shown to have been properly executed and the petitioner entitled to probate probate is ordered to be granted.

THE INDIAN SCIENCE CONGRESS

The third annual Indian Science Congress will be held in Lucknow on January 18th, 14th and 16th 1916. Many of the papers are of purely technical interest but several deal with matters of direct public importance. Such are "Education in its relation to Agriculture" by Mr. B. Coventry. "The Re-alignment of Holdings" by Mr. B. C. Burt. "The Application of Botanical Science to Agriculture" by Mr. A. Howard. "Winds at various Cloud Levels and their relation to the Monsoon" by Mr. W.

A. Harwood. "Plant and animal life in water come in for a good deal of attention, as may be seen from the papers "Seasonal Conditions governing Pond Life in the Punjab" by Mr. Balraj Parashad. "A Review of Botative Adaptations of certain Water Plants," by Mr. M. S. Ramaswami and "The Aquatic Weeds of the Godavari and Pravara Canals & Study in Applied Ecology" by Dr. W. Burns. Dr. J. C. Bose is to deliver a public lecture on "Invisible Light."

Freemasonry.

In an institution so universal as Freemasonry the growth of that body in any particular part of the world is usually similar in all respects to the development in other parts. When Freemasonry was first established in Bombay and became strong enough to have its own Provincial Grand Lodge, the Grand Master of English Freemasons appointed James Todd a Lieutenant of Police, as the first Provincial Grand Master in 1764. This office he held until 1798 when the Provincial Grand Lodge seems to have gone into abeyance. A revival apparently set in in 1833 and Lodge Orion in the West was founded at Poona. This was followed in 1844 by Lodge St. Andrews at Kamptee and in 1848 by Lodge St. George in Bombay. In 1861 the Provincial Grand Lodge was revived and George Taylor was appointed P. G. M.

In 1870 a fresh warrant was issued by which the Provincial Grand Lodge of Bombay was altered as D. G. M. The next D. G. M. was Edward Tyrrell Leith who took charge in 1879 and he was followed in 1887 by H. R. H. the Duke of Connaught. The remainder of the District Grand Masters were H. E. Lord Sandhurst 1895-1899, H. E. Lord Northcote 1900-1902, Hon. Sir Lawrence Jenkins 1903-1907 and G. Owen W. Dunn 1908-1911. The present D. G. M. being W. Albion Haig Brown who was appointed in 1912.

Under the skilful management of these illustrious men the District has grown until now there are under the District Grand Lodge of Bombay 40 Lodges with a total membership of over 2,000.

At the same time the Royal Arch and Mark degrees have also prospered and there are 18 Chapters with a total membership of over 600 and 11 Mark Lodges totalling over 300. One of the principal objects of Masonry being charity it is interesting to know that from January 1884 to December 1912 the Lodges and chapters subscribed over Rs. 62,700 to the Bombay Masonic Association and individual brethren over Rs. 22,800. Of these amounts practically Rs. 53,000 has been spent on schooling, etc., of children of deceased or indigent masons and it is hoped that sufficient funds will be forthcoming to form a fund the interest on which will be sufficient to clothe feed and school more of such unfortunate children than hitherto has been possible.

The Lodges in the District also have to pay every year a small fee for each member to the Board of Benevolence and these contributions have enabled that Board to disburse to widows, distressed masons and to famine relief funds etc. a sum of nearly Rs. 48,000.

DISTRICT GRAND LODGE C

List of Principal Officers, 1913.

CALCUTTA

R. W. District Grand Master Right Hon. Baron Carmichael of Skirling, G.C.B., K.C.M.G.
Deputy District Grand Master, Hon. Sir James Houston, K.C.I.B.
District Senior Grand Warden, D. Landale Johnston.

District Junior Grand Warden Maharaja of Kuch Behar

District Grand Secretary J. A. Dolton

BOMBAY

R. W. District Grand Master W. A. Haig

Brown, J.P.

Deputy District Grand Master C. B. Robinson, J.P. P.U.D. (Eng.)

District Senior Warden, Khan Bahadur F. N. Suntook

District Junior Grand Warden, Dr. F. Efford

District Grand Secretary J. F. Pennock, V.D. I.A.D.D. (Eng.)

MADRAS

R. W. District Grand Master Hon. Mr. L. B. Buckley

Deputy District Grand Master C. J. Higgs

District Senior Grand Warden, Col. D. M. Rivington

District Junior Grand Warden, A. L. Hannay

District Grand Secretary J. H. B. Brougham

BANGALORE

R. W. District Grand Master The Hon. Mr. Justice E. W. Ormond.

Deputy District Grand Master Col. H. W. Senior

District Senior Grand Warden W. Kendall

District Junior Grand Warden G. H. Evans

District Grand Secretary A. Blake

GRAND LODGE OF ALL SCOTCH

FREEMASONRY IN INDIA

Installation—November (St. Andrew's Day)

COMMUNICATION—4th Saturday in January, April, July and October

PLACE OF MEETING—Freemasons Hall, Ravello Street, Bombay

Grand Master The Hon. Mr. Justice F. C. O. Beaman, I.C.S.

Grand Master Deputy P. C. Sethna

Substitute Grand Master P. R. Cadell, I.C.S.

Honorary Substitute Grand Master T. Srinivasacharya.

Grand Superintendent of Northern India, Lt.-Colonel J. E. Barry

Grand Superintendent of Central India, Col. F. W. P. Macdonald.

Grand Superintendent of Southern India, J. Perrow

Grand Superintendent of Eastern India W. R. Gourlay, I.C.S.

Senior Grand Warden E. Clements, I.C.S.

Do do do Mirza Ali Mahomed Khan

Junior Grand Warden C. H. Stephens

Do do do C. W. Ives

Secretary—ARTHUR W. WISE,

Elphinstone Building, Marban Road, Fort Bombay

BENGAL MASONIC ASSOCIATION

for

Educating Children of Indigent Freemasons.

Registered under Act XXI of 1860

Instituted in 1869

President—The Right Hon ble Baron Carmichael of Skirling, G.C.I.E., K.C.M.G., *District Grand Master*

This Association is supported by capitation assessments from the Lodges in the District of Bengal and by voluntary contributions.

1 A donation of Rs 500 made in one or more payments of not less than Rs 10 each constitutes the donor a *Vice President for Life* with the privilege of five votes

2 A donation of Rs 100 constitutes the donor a *Governor for Life* with the privilege of one vote and one vote for each additional donation of Rs 100

3 A subscription of Rs 10 per annum entitles the subscriber to one vote for the year and an extra vote for every additional Rs 10

4 The conditions of the above are the same whether the donor or subscriber be an individual or a Lodge, Chapter or any other society

5 A general meeting of subscribers is held twice in the year at Freemasons Hall Calcutta 18 Park Street

6 The general conduct of the affairs of the Association is entrusted to a Committee composed of the *President, Treasurer and Secretary*, and of five Members to be elected at the February Half yearly General Meeting.

7 The funds of the Association are devoted solely to the board and education of children

8 Children are admitted into the Association at the age of seven years and continue therein till they have attained the age of seventeen years

This rule applies equally to children of both sexes without any distinction of religious denominations

9 Elections take place at each *Quorum Meeting* of Subscribers according to the number of vacancies and capabilities of the fund

10 No child is eligible to be placed on the List of Candidates unless his father has been a Registered Mason for five years and Subscribing Member of some Lodge for at least three years of that period

Subscriptions and donations are received by the District Grand Secretary and by the Secretary of the Association (Herbert E Kent, Freemasons Hall 18 Park Street)

W J Bradshaw *Honorary Treasurer*

Herbert E Kent *Secretary*

BENGAL MASONIC FUND OF
BENEVOLENCE.

GRAND COMMITTEE

President

The Right Honourable Baron Carmichael of Skirling G.C.I.E., K.C.M.G., *District Grand Master*

The Hon ble Sir James Meston K.C.I.E.,
Deputy District Grand Master

C D Stewart F.D.C.W.

S A Fairweather *Deputy Grand Treasurer*

J A Bolton *Deputy Grand Secretary*

H L Kent *Deputy Grand Secretary*

SCOTTISH MASONIC FUND OF
BENEVOLENCE.

For the purpose of affording temporary relief to indigent Freemasons and their families

Grand Secretary—Arthur W Wain

Highgate Building, Murzban Road
Fort, Bombay

THE SCOTTISH MASONIC BENEVOLENT
ASSOCIATION IN INDIA.

(a) for the purpose of granting Assistance to old and destitute Freemasons and their widows.

(b) Granting allowances towards the maintenance and education of the children of deceased or indigent Freemasons

C D Fardonjer *Honorary Secretary and Treasurer*

J C Mehta *Honorary Assistant Secretary*
11, Plimston Building, Murzban Road Fort
Bombay

THE HINDU MASONIC BENEVOLENT
ASSOCIATION

Registered under Act XXI of 1860
(Established 1873)

Patron

Right Wor Bro H J the Right Hon ble Lord Lamington G.C.M.G., G.C.I.E. *Late Grand Master of A & F, India and Governor of Bombay*

C H Chetham *President*

Secretary—Framrose E Punthakey, Victoria Street, Tredy Quarter, Karachi

Indian Architecture

I ANCIENT

The architecture of India has proceeded on lines of its own and its monuments are unique among those of the nations of the world. An ancient civilization a natural bent on the part of the people towards religious fervour of the contemplative rather than of the fanatical sort, combined with the richness of the country in the sterner building materials—these are a few of the factors that contributed to making it what it was while a stirring history gave it both variety and glamour. Indian architecture is a subject which at the best has been studied only imperfectly and a really comprehensive treatise on it has yet to be written. The subject is a vast and varied one and it may be such a treatise never will be written in the form of one work at any rate. The spirit of Indian art is so foreign to the European of art culture that it is only one European in a hundred who can entirely understand it while art criticism and analysis is a branch of study that the modern Indian has not as yet ventured upon to say appreciable extent. Herbert the one and with a few exceptions the only recognized authority on the subject has been Fergusson whose compendious work is that which will find most ready acceptance by the general reader. But Fergusson attempted the nearly impossible task of covering the ground in one volume of moderate dimensions and it is sometimes held that he was a man of too purely European a culture albeit wide and eclectic to admit of sufficient depth of insight in this particular direction. Fergusson's classification by races and religions is however the one that has been generally accepted hitherto. He asserts that there is no stone architecture in India of an earlier date than two and a half centuries before the Christian era and that India owes the introduction of the use of stone for architectural purposes as she does that of Buddhism as a state religion to the great Asoka who reigned B.C. 272 to 232.

Buddhist Work.

Fergusson's first architectural period is then the Buddhist of which the great top at Bami with its famous Northern gateway is perhaps the most noted example. Then we have the Gandharan toposes and monasteries. Perhaps the examples of Buddhist architecture of greatest interest and most ready access to the general student are to be found in the Chaitya halls or rock-cut caves of Karli, Ajanta, Nasik, Ellora and Kanheri. A point with relation to the Gandharan work may be alluded to in passing. This is the strong European tendency variously recognized as Roman, Byzantine but most frequently as Greek to be observed in the details. The foliage seen in the capitals of columns bears strong resemblance to the Greek acanthus while the sculptures have a distinct trace of Greek influence particularly in the treatment of drapery. From this it has been fairly common assumption amongst some authorities that Indian art owed much of its best to European influence an assumption that is strenuously combated by others.

The architecture of the Jains comes next in order. Of this rich and beautiful style the most noted examples are perhaps the Dilwara temples near Mount Abu and the unique Tower of Victory at Chittore.

Other Hindu Styles.

The Dravidian style is the generic title usually applied to the characteristic work of the Madras Presidency and the South of India. It is seen in many rock-cut temples as at Ellora, where the remarkable 'Kylas' is an instance of a temple cut out of the solid rock complete, not only with respect to its interior (as in the case of mere caves) but also as to its exterior. It is as it were a life-size model of a complete building or group of buildings several hundred feet in length not built but sculptured in solid stone, an undertaking of vast and, to our modern ideas, unprofitable industry. The Pagoda of Tanjore, the temples at Seringham, Chidambaram, Vellore, Vijayanagar, &c. and the palaces at Madura and Tanjore are among the best known examples of the style.

The writer finds some difficulty in following Fergusson's two next divisions of classification the Chalukyan of South-central India, and the Northern or Indo-Aryan style. The differences and the similarities are apparently so intermixed and confusing that he is fain to fall back on the broad generic title of Hindu—however unsatisfactory he may thereby stand confessed. Amongst a vast number of Hindu temples the following may be mentioned as particularly worthy of study—Those at Mukteswara and Bhuvaneshwar in Orissa, at Khajuraho, Bindraban, Udaipur, Benares, Gwalior &c. The palace of the Hindu Raja Man Singh at Gwalior is one of the most beautiful architectural examples in India. So also are the palaces of Amber, Datia, Uchha, Dig and Udaipur.

Indo-Saracenic

Among all the periods and styles in India the characteristics of none are more easily recognizable than those of what is generally called the Indo-Saracenic which developed after the Mahomedan conquest. Under the new influences now brought to bear on it the architecture of India took on a fresh lease of activity and underwent remarkable modifications. The dome not entirely an unknown feature hitherto became a special object of development while the arch, at no time a favourite constructional form of the Hindu builders was now forced on their attention by the predilections of the ruling class. The minaret also became a distinctive feature. The requirements of the new religion—the mosque with its wide spaces to meet the needs of organised congregational acts of worship—gave opportunities for broad and spacious treatments that had hitherto been to some extent denied. The Moslem hatred of idolatry set a ban on the use of sculptured representations of animate objects in the adornment of the buildings, and led to the development

of other decorative forms. Great ingenuity came to be displayed in the use of pattern and of geometrical and foliated ornament. This Moslem trait further turned the attention of the builders to a greater extent than before to proportion and mass as means of giving beauty, mere richness of sculptured surface and the aesthetic and symbolic interest of detail being no longer to be depended on to the same degree.

The art was thus the gainer by the new conditions. It gained in power and variety much as "Classic" architecture gained under the Romans. But it equally lost something too. The Indo-Saracenic is apt to appear cold and hard. The writer was impressed by this on his first view of the Gwalior palace already mentioned. Though a Hindu building that palace has yet much of what might be called the more sophisticated quality of the Indo-Saracenic work as well as some similarity of detail. It has, being Hindu, a certain amount of sculptured ornament of animated forms and the general effect of roundness, richness and interest thereby imparted seemed eloquent in suggestion as to what is lacking in so many of the Mahometan buildings.

Foreign Influence.

There would appear to be a conflict between archaeologists as to the extent of the effect on Indian art produced by foreign influence under the Mahometans. The extreme view on the one hand is to regard all the best of the art as having been due to foreign importation. The Gandharan sculptures with their Greek tendency, the development of new forms and modes of treatment to which allusion has been made, the similarities to be found between the Mahometan buildings of India and those of North Africa and Europe, the introduction of the minaret and, above all the historical evidences that exist of the presence in India of Europeans during Mogul times, are cited in support of the theory. On the other hand those of the opposite school hold the foregoing view to be due to the prevailing European preconception that all light and leading must come by way of Europe and the best things in art by way of Greece. To them the Gandharan sculpture, instead of being the best in the world in India even because of its Greek tincture. They find in the "truly vigorous, with various and significant" not to be seen in the Graeco-Bactrian sculptures and point to those of Borobudur in Java, the work of Buddhist colonists from India, wonderfully preserved by reason of an immunity from destructive influences given by the insular position, as showing the best examples of the art extant. It is probable that a just estimate of the merits of the controversy with respect to sculpture at any rate cannot be formed till there has obliterated some of the differences of taste that exist between East and West.

To the adherents of the newer school the undisputed similarities between Indo-Mahometan and Hindu buildings outweigh those between Indian and Western Mahometan work, especially in the light of the dissimilarity between the latter. They admit the changes produced by the advent of Islam,

but contend that the art, though modified, yet remained in its essence what it had always been, indigenous Indian. The minaret the dome the arch they contended though developed under the Moslem influence, were yet so far as their detailed treatment and craftsmanship are concerned, rendered in a manner distinctively Indian. Ferguson is usually regarded as the leader of the former school while the latter and comparatively recent school has at present found an eager champion in Mr E B Havell, whose works, on the subject are recommended for study side by side with those of the former writer. Mr Havell practically discards Ferguson's racial method of classification into styles in favour of a chronological review of what he regards to a greater extent than did his famous predecessor as being one continuous homogeneous Indian mode of architectural expression though subject to variations from the influences brought to bear upon it and from the varied purposes to which it was applied.

Agra and Delhi.

Agra and Delhi may be regarded as the principal centres of the Indo Saracenic style—the former for the renowned Taj Mahal, for Akbar's deserted capital of Fatehpur Sikri has tomb at Secundra, the Moti Masjid and palace buildings at the Agra fort. At Delhi we have the great Juma Masjid, the Fort, the tombs of Humayun, Sufiar Jung &c., and the unique Qurb Minar. Two other great centres may be mentioned because in each there appeared certain strongly marked individualities that differentiated the varieties of the style there found from the variety seen at Delhi and Agra as well as that of one from that of the other. These are Ahmedabad in Gujarat and Bijapur on the Dekhan both in the Bombay Presidency. At Ahmedabad with its neighbours Sirkhej and Champanir there seems to be less of a departure from the older Hindu forms, a tendency to adhere to the lintel and bracket rather than to have recourse to the arch while the dome though constantly employed, was there never developed to its full extent as elsewhere or carried to its logical structural conclusion. The Ahmedabad work is probably most famous for the extraordinary beauty of its stone, jail—or pierced lattice-work as in the palm tree windows of the Siddi Sayyid Masjid.

Bijapur

The characteristics of the Bijapur variety of the style are equally striking. They are perhaps more distinctively Mahometan than those of the Ahmedabad buildings in that here the dome is developed to a remarkable degree, indeed the tomb of Mahmud—the well known Gol Gumbaz—is cited as showing the greatest space of floor in any building in the world roofed by a single dome not even excepting the Pantheon. The lintel also was here practically discarded in favour of the arch. The Bijapur style shows a bold masculine quality and a largeness of structural conception that is unequalled elsewhere in India, though in richness and delicacy it does not attempt to rival the work of the further North. In this we recognize among other influences,

that of the prevailing material the hard un-compromising Dekhan basalt. In a similar manner the characteristics of the Ahmedabad work with its greater richness of ornamentation are bound up with the nature of the Gujarat freestone, while at Delhi and Agra the freer

choice of materials available—the local red and white sandstones combined with access to marble and other more costly materials—was no doubt largely responsible for the many easily recognizable characteristics of the architecture of these centres

II MODERN

The modern architectural work of India divides itself sharply into two classes. There is first that of the indigenous Indian Master builder to be found chiefly in the Native States, particularly those in Rajputana. Second there is that of British India or of all those parts of the peninsula where Western ideas and methods have most strongly spread their influence chiefly, in the case of architecture, through the medium of the Department of Public Works. The work of that department has been much animated upon as being all that building should not be but, considering it has been produced by men to whom it was admittedly not the *metier* and who were necessarily contending with lack of expert training on the one hand and with departmental methods on the other it must be conceded that it can shew many notable buildings. Of recent years there has been a tendency on the part of professional architects to turn their attention to India and a few of these have even been drafted into the service of Government as the result of a policy initiated in Lord Curzon's Viceroyalty. In time therefore, and with the growth of the influence of these men, much of the reproach against the building of the British in India as was just and was not merely thoughtlessly maintained as a corollary to the popular jape against every thing official may gradually be removed. If this is so as to Government work progress should be even more assured in the freer atmosphere outside of official life. Already in certain of the greater cities where the trained modern architect has established himself in private practice, there are signs that his influence is beginning to be felt. He still complains however, that the general public of India needs much educating up to a recognition of his value, both in a pecuniary sense and other wise. It is also to be observed that the survival of a relic of the popular idea of the time before his advent to the effect that though an architect might occasionally design

a building it was always an engineer who built it is still indicated by the architect in some cases deeming it advisable to style himself architect and engineer

To the work of the indigenous "master-builder" public attention has recently been drawn with some prominence and the suggestion is being pressed that efforts should be directed towards devising means for the preservation of what is pointed out to be a remarkable survival—one of the few in the world—of living art but which is threatened with extinction by reason of the spread of Western ideas. The matter has assumed the form of a controversy centring round the question of that much discussed project the building of the Government of India's new capital at Delhi. It is urged that this project should be utilised to give an impetus to Indian rather than to Western art. Those who plead for the preservation of the art appear for the most part to be adherents of the indigenous Indian school of archaeologists already mentioned. They have mustered a considerable following, not only amongst the artistic public of England and India but even within the Government services. The controversy is however too strictly one of the moment and too purely technical for its merits to be judged by the general reader or discussed here. Its claim on our attention lies in the fact that it affords an added interest for the tourist who may see good examples of the master builders' work in nearly every native town and bazaar in India. The town of Jashkar in Gwalior State may be cited as peculiarly rich in instances of picturesque modern Indian street architecture while at Jaipur, Udaipur, Benares &c, this class of work may be studied in many different forms both civil and religious and the extent to which the alleged unbroken tradition from the past exists may be gauged by the traveller who is architect enough for the purpose

Archæology.

The archæological treasures of India are as varied as they are numerous. Those of the pre-Muhammadan period may roughly be divided into (1) architectural and sculptural monuments and (2) inscriptions. No building or sculpture in India with any pretensions to be considered an example of architecture or art can be ascribed to a time earlier than that of Asoka (circa 250 B.C.). In the pre-Asoka architecture of India, as in that of Burma or China at the present day, wood was solely or almost solely employed. Even at the close of the 4th century B.C. Megasthenes the Greek Ambassador at the court of Chandragupta, grand father of Asoka, describes Pataliputra, the capital of the Indian monarch as surrounded by a wooden wall pierced with hop-holes for the discharge of arrows. If the capital itself was thus defended we can easily infer that the architecture of the period was wooden. And long long after stone was introduced the Hindu styles continued to be influenced by or copied from, the wooden.

Monumental Pillars.—The first class of works that we have to notice are the monumental pillars known as *stelæ*. The oldest are the monolithic columns of Asoka, nearly thirty in number of which ten bear his inscriptions. Of these the Lauriya Nandangarh column in the Champaran District Tirhut is practically unimpaired. The capital of each column like the shaft, was monolithic and comprised three members viz., a Persepolitan bell, abacus and crowning sculpture in the round. By far the best capital of Asoka's time was that exhumed at Sarnath near Benares. The four lions standing back to back on the abacus are carved with extraordinary precision and accuracy. Of the post-Asokan period one pillar (B.C. 150) stands to the north-east of Benares in the Gwalior State another in front of the cave of Karli (A.D. 70) and a third at Eran in Central Provinces belonging to the 6th Century A.D. All these are of stone but there is one of iron also. It is near the Quth Minar at Delhi and an inscription on it speaks of its having been erected by a king called Chandragupta identified with Chandragupta II (A.D. 375-413) of the Gupta dynasty. It is wonderful to find the Hindus at that age forging a bar of iron larger than any that have been forged even in Europe to a very late date and not frequently even now. Pillars of later style are found all over the country especially in the Madras Presidency. No less than twenty exist in the South Kanara District. A particularly elegant example faces a Jain temple at Mudabidri, not far from Mangalore.

Topes.—*Stupas*, known as *dagobas* in Ceylon and commonly called Topes in North India, were constructed either for the safe custody of relics hidden in a chamber often near the base or to mark the scene of notable events in Buddhist or Jain legends. Though we know that the ancient Jains built *stupas* no specimen of Jain *stupas* is now extant. Of those belonging to the Buddhists, the great Tope of Sanchi in Bhopal, is the most intact and entire of its class. It consists of a low circular drum supporting a hemispherical dome of less diameter. Below the drum is an open passage for circum-

ambulation and the whole is enclosed by a massive stone railing with lofty gates facing the cardinal points. The gates are essentially wooden in character and are carved, inside and out, with elaborate sculptures. The *stupa* itself probably belonged to the time of Asoka, but as Dr. Marshall's recent explorations have conclusively shown, the railing and the gate ways were at least 150 and 200 years later respectively. Other famous Buddhist *stupas* that have been found are those of Bharhut between Allahabad and Jubbulpore, Amravati in the Madras Presidency and Piprahwa on the Nepalese frontier. The tope proper at Bharhut has entirely disappeared having been utilised for building villages and what remained of the rail has been removed to the Calcutta Museum. The bas-reliefs on this rail which contain short inscriptions and thus enable one to identify the scenes sculptured with the *Jalakas* or Birth Stories of Buddha give it a unique value. The *stupa* at Amravati also no longer exists, and portions of its rail, which is unsurpassed in point of elaboration and artistic merit, are now in the British and Madras Museums. The *stupa* at Piprahwa was opened by Mr. W. C. Peppe in 1898 and a statue of soap-stone replete with an inscription on it was unearthed. The inscription according to many scholars, speaks of the relics being of Buddha and enshrined by his kinsmen the Sakyas. And we have thus here one of the *stupas* that were erected over the ashes of Buddha immediately after his demise.

Caves.—Of the rock excavations which are one of the wonders of India nine-tenths belong to Western India. The most important groups of caves are situated in Bhaja Bedsa, Karli, Kanheri, Junnar and Nasik in the Bombay Presidency Ellora and Ajanta in Nizam's Dominions Barabar 16 miles north of Gaya, and Udayagiri and Khandagiri 20 miles from Cuttack in Orissa. The caves belong to the three principal sects into which ancient India was divided viz., the Buddhists, Hindus, and Jains. The earliest caves so far discovered are those of Barabar which were excavated by Asoka and his grandson Dasaratha, and dedicated to Ajivikas a school sect founded by Makkhali Gosala. This refutes the theory that cave architecture was of Buddhist origin. The next earliest caves are those of Bhaja, Pitalkhora and cave No. 9 at Ajanta and No. 19 at Nasik. They have been assigned to 200 B.C. by Ferguson and Dr. Rungess. But there is good reason to suppose from Dr. Marshall's recent researches and from epigraphic considerations that they are considerably more modern. The Buddhist caves are of two types—the *chaityas* or chapel caves and *viharas* or monasteries for the residence of monks. The first are with vaulted roofs and horse-shoe shaped windows over the entrance and have interiors consisting of a nave and side aisles with a small *stupa* at the inner circular end. They are thus remarkably similar to Christian basilicas. The second class consist of a hall surrounded by a number of cells. In the later *viharas* there was a sanctum in the centre of the back wall containing a large image of Buddha. Hardly a *chaitya* is found without one or more *viharas* adjoining it. Of the Hindu cave tem-

pies that at Elephanta near Bombay is perhaps the most frequented. It is dedicated to Shiva and is not earlier than the 7th century A.D. But by far the most renowned cave-temple of the Hindus is that known as Kailasa at Ellora. It is on the model of a complete structural temple but carved out of solid rock. It also is dedicated to Shiva and was excavated by the Rashtrakuta king, Krishna I. (A.D. 788) who may still be seen in the paintings in the ceilings of the upper porch of the main shrine. Of the Jaina caves the earliest are at Khandagiri and Udayagiri, those of the mediæval type in Indra Sabha at Ellora and those of the latest period at Ankal in Nasik. The ceilings of many of these caves were once adorned with fresco paintings. Perhaps, the best preserved among these are those at Ajanta, which were executed at various periods between 350-650 A.D. and have elicited a high praise as works of art. Copies were first made by Major Gill but most of them perished by fire at the Crystal Palace in 1866. The last ones were again copied by John Griffiths of the Arts School, Bombay, half of whose work was similarly destroyed by a fire at South Kensington. They were last copied by Mrs. Herringham in 1911.

Gandhara Monuments.—On the north-west frontier of India, anciently known as Gandhara, are found a class of remains, ruined monasteries and buried stupas among which we notice for the first time representations of Buddha and the Buddhist pantheon. The free use of Corinthian capitals, friezes of nude Erotes bearing a long garland, winged Atlantes without number, and a host of individual motifs clearly establish the influence of Hellenistic art. The mound at Peshawar locally known as Shah-jika Dheri which was explored in 1899 brought to light several interesting sculptures of this school together with a reliquary casket the most remarkable bronze object of the Gandhara period. The inscription on the casket left no doubt as to the mound being the stupa raised over the bones of Buddha by the Indo-Scythian king Kanishka. They were presented by Lord Minto's Government to the Buddhists of Burma and are now enshrined at Mandalay. To about the same age belong the stupas at Manikyala in the Punjab opened by Ranjit Singh's French General Ventura and Court in 1830. Some of them contained coins of Kanishka.

Structural Temples.—Of this class we have one of the earliest examples at Nanchi and another at Tigowa in the Central Provinces. In South India we have two more examples viz. Lad Khan and Durga temples at Alibole in Bilaspur. All these belong to the early Gupta period and cannot be later than 500 A.D. The only common characteristic is flat roofs without spires of any kind. In other respects they are entirely different and already here we mark the beginning of the two styles Indo-Aryan and Dravidian whose differences become more and more pronounced from the 7th century onwards. In the Indo-Aryan style, the most prominent lines tend to the perpendicular, and in the Dravidian to the horizontal. The salient feature of the former again is the curvilinear steeple, and of the latter the pyramidal tower. The most notable examples of the first kind are to be found among the temples of Bhubaneswar in Orissa, Khajuraho in Bundelkhand, Odla in Jodhpur, and Dilwara on Mount Abu. One of the best known groups in the Dravidian style is that of the Mamallapuram Baths of Seven Pagodas on the seacoast to the south of Madras. They are each hewn out of a block of granite and are rather models of temples than rocks. They are the earliest examples of typical Dravidian architecture and belong to the 7th century. To the same age has to be assigned the temple of Kalaseanath at Conjevaram, and to the following century some of the temples at Alibole and Pattadakal of the Bilaspur District, Bombay Presidency and the mono-lithic temple of Kallasa at Ellora referred to above. Of the later Dravidian style the great temple at Tanjore and the Srirangam temple of Trichinopoly are the best examples.

Intermediate between these two main styles comes the architecture of the Deccan called Chalukyan by Ferguson. In this style the plan becomes polygonal and star-shaped instead of quadrangular and the high-storied spire is converted into a low pyramid in which the horizontal treatment of the Dravidian is combined with the perpendicular of the Indo-Aryan. Some fine examples of this type exist, at Dambal, Rattihalli, Tiliwalli and Hampi in Dharwar Bombay Presidency and at Ittagi and Warangal in Nizam's Dominions. But it is in Mysore among the temples at Halebidu, Belur and Somnathpur that the style is found in its full perfection.

Inscriptions.—We now come to inscriptions, of which numbers have been brought to light in India. They have been engraved on varieties of materials, but principally on stone and copper. The earliest of these are found incised in two distinct kinds of alphabet, known as Brahmi and Kharoshthi. The Brahmi was read from left to right, and from it have been evolved all the modern vernacular scripts of India. The Kharoshthi was written from right to left and was a modified form of an ancient Aramaic alphabet introduced into the Punjab during the period of the Persian domination in the 5th century B.C. It was prevalent up to the 4th century A.D. and was supplanted by the Brahmi. The earliest datable inscriptions are the celebrated edicts of Asoka. One group of these has been engraved on rocks and another on pillars. They have been found from Shahjahanpur 40 miles north-west of Peshawar to Nigla in the Nepal Terai from Gimar in Kathiawar to Dhaul in Orissa, from Kalsi in the Lower Himalayas to Siddapur in Mysore showing by the way the vast extent of territory held by him. The reference in his Rock Edicts to the five contemporary Greek Princes, Antiochus II of Syria, Ptolemy Philadelphus, and so forth is exceedingly interesting, and fixes B.C. 249 as the date of his coronation. His Rummindei pillar inscription again, discovered in Nepal Terai now settled, beyond all doubt, the birth place of Buddha which was for long disputed. Another noteworthy record is the inscription of the Besnagar pillar. The pillar had been known for a long time but Dr. Marshall was the first to notice the inscription on it. It records the erection of this column which was a Garuda pillar in honour of the god Vasudeva by one Heliadon, son of Dion, who is described as an envoy of King Antialcidas of Taxila.

Heliodoros is herein called a *Bhagavata*, which shows that though a Greek he had become a Hindu and presumably a Vaishnava. Another inscription worth noticing and especially in this connection is that of Cave No. 10 at Nashik. The donor of this cave, Ushavadata, who calls himself a *baka* and was thus an Indo-Scythian, is therein spoken of as having granted three hundred thousand *kine* and sixteen villages to gods and Brahmins and as having annually fed one hundred thousand Brahmins. Here is another instance of a foreigner having embraced Hinduism. Thus for the political, social, economical and religious history of India at the different periods the inscriptions are invaluable records, and are the only light but for which we are forlorn and blind.

Saracenic Architecture.—This begins in India with the 13th century after the permanent occupation of the Muhammadans. Their first mosques were constructed of the materials of Hindu and Jain temples, and some times with comparatively slight alterations. The mosque called *Adhas-din la jhompra* at Ajmer and that near the Qutb Minar are instances of this kind. The Muhammadan architecture of India varied at different periods and under the various dynasties, imperial and local. The early Pathan architecture of Delhi was massive and at the same time was characterised by elaborate richness of ornamentation. The Qutb Minar and tombs of Alauddin and Ala-ud-din Khalji are typical examples. Of the Sharqi style we have three mosques in Jaunpur with several tombs. At Mandu in the Dhar State a third form of Saracenic architecture sprang up and we have here the Jam Masjid, Bhojra's tomb, Jahaz Mahal and Hindola Mahal as the most notable instances of the secular and ecclesiastical styles of the *Mawla Pathans*. The Muhammadans of Bengal again developed their own style, and Pandua, Malda and Gaur teem with the ruins of the buildings of this type, the important of which are the Adina Masjid of Sikandar Shah, the Elakhi mosque, Kadam Rasul Masjid, and so forth. The Bahmani dynasty of Gulbarga and Bidar were also great builders and adorned their capitals with important buildings. The most striking of these is the great mosque of Gulbarga, which differs from all mosques in India in having the whole central area covered over so that what in others would be an open court is here roofed by sixty three small domes. Of the various forms which the Saracenic architecture assumed, says Percussion, that of Ahmedabad may probably be considered to be the most elegant. It is notable for its carved stone work and the work of the perforated stone windows in Sidi Bayid's mosque, the carved niches of the minars of many other mosques, the sculptured *Mihrabs* and domed and panelled roofs is so exquisite that it will rival anything of the sort executed elsewhere at any period. No other style is so essentially Hindu. In complete contrast with this was the form of architecture employed by the *Adil Shahi* dynasty of Bijapur. There is here relatively little trace of Hindu forms or details. The principal buildings now left at Bijapur are the Jam Masjid, Gagan Mahal, Mihtar Mahal, Ibrahim Rauza and mosque and the Gol Gumbaz. Like their predecessors, the Pathans of Delhi, the Moghuls

were a great building race. Their style first began to evolve itself during the reign of Akbar in a combination of Hindu and Muhammadan features. Noteworthy among the emperor's buildings are the tomb of Humayun, and the palaces at Fatehpur Sikri and Agra. Of Jahangir's time his mosque at Lahore and the tomb of Ibrad ul-daula are the most typical structures. The force and originality of the style gave way under Shah Jahan to a delicate elegance and refinement of detail. And it was during his reign that the most splendid of the Moghul tombs the Taj Mahal at Agra, the tomb of his wife Mumtaz Mahal was constructed. The Moti Masjid in Agra Fort is another surpassingly pure and elegant monument of his time.

Archaeological Department.—As the archaeological monuments of India must attract the attention of all intelligent visitors they would naturally feel desirous to know something of the Archaeological Department. The work of this Department is primarily two-fold, conservation and research and exploration. None but spasmodic efforts appear to have been made by Government in these directions till 1870 when they established the Archaeological Survey of India and entrusted it to General (afterwards Sir) Alexander Cunningham who was also the first Director General of Archaeology. The next advance was the initiation of the local Surveys in Bombay and Madras three years after. The work of these Surveys, however, was restricted to antiquarian research and description of monuments and the task of conserving old buildings was left to the efforts of the local Governments often without expert guidance or control. It was only in 1878 that the Government of India under Lord Lytton awoke to this deplorable condition, and sanctioned a sum of 3½ lakhs to the repair of monuments in United Provinces and soon after appointed a conservator Major Cole who did useful work for three years. Then a reaction set in and his post and that of the Director General were abolished. The first systematic step towards recognising official responsibility in conservation matters was taken by Lord Curzon's Government who established the seven Archaeological Circles that now obtain placed them on a permanent footing, and united them together under the control of a Director General, provision being also made for subdividing local Governments out of imperial funds, when necessary. The Ancient Monuments Preservation Act was passed for the protection of historic monuments and relics especially in private possession and also for State control over the excavation of ancient sites and traffic in antiquities. Under the direction of Dr J. H. Marshall C.E.S., Director General of Archaeology, a comprehensive and systematic campaign of repair has been prosecuted, and the result of it is manifest in the present altered conditions of old buildings. One has only to see for example the Moghul buildings at Agra, Delhi, Lahore and Ajmer, in order to be convinced how the work of careful reconstruction and repair has converted these decayed and desecrated monuments with their modern excrescences into edifices of unrivalled loveliness. Another noteworthy feature of this work has been the rescue of many of these buildings from profane and sacrilegious uses. It is well-

known that the superb Pearl Mosque of Jahangir in the Lahore Fort contained a Government treasury and the Sleeping Hall of Shah Jahan served as a Church for the British troops. At Bijapur two mosques have been recovered, one of which was used as Dak Bungalow and the other as Post Office. The local Kutcherry has now been expelled from the lovely mound of Bidi Sayyid at Ahmedabad. The Cave temples at Trichinopoly are no longer godowns. Nor has

research work been in any way neglected under the new order of things. A unique feature of it for the first time introduced under the guidance and advice of Dr. Marshall has been the scientific excavation of buried sites such as Samath where Buddha preached his first sermon. Kasla or Kusinara where he died. Sabeth Mahesh the ancient Sravasti Taxila or Takshashila, the seat of the ancient Hindu University and so forth.

Indian Art.

Within the last few years there has been a most interesting and promising, though some what narrowly confined revival in Indian Art. For this, it is to be feared scant credit is due to British educational policy in India, though the impetus has come mainly from a few British and other European enthusiasts who have reminded cultured India of the value of its ancient artistic heritage and indicated the possibilities of revival. Each year between 4,000 and 7,000 students pass the various examinations of the four Schools of Arts maintained by the State but until very recently those institutions have been in some respects seriously mistaken in ideal and method. Viewing their work over half a century it may be said broadly that they have paid very inadequate attention to the traditions of Indian Art and that in consequence or unconsciously encouraging Western influences which the Indian student could not thoroughly assimilate, they have not even been particular to choose good examples of Western art. Nor have the Schools of Arts been altogether free from the taint of commercialism. Indeed for some years one of them was in effect something between an industrial workshop and an emporium for selling Indian curiosities nicely designed to meet the taste of tourists. In justice to the Schools it should be added that they have seldom been able to attract into their members of the hereditary craftsman class. The material they have had to work with has been unpromising. Further even for students who might attain to conspicuous skill, there have been few openings up after life. All this is now changing but the improvement began only some fifteen years ago and it is mainly due to agencies more or less independent of the schools.

A Notable Revival.

The revival which has already produced one notable artist Mr. Abanindranath Tagore is the direct outcome of the study of the work of the best periods of Indian art. In order to comprehend it, it is therefore necessary to glance back over the history of art in India. With sculpture we are here not particularly concerned, for there is no perceptible revival

in it at present but it may be said in passing that its golden age in India was the period which produced the sculptures of Ellora and Elephanta that in its finest examples this art was genuinely Indian for the Gandhara sculptures which show strong Greek influence, are inferior enough to make the contention that India owed much to Greece absurd, and that perhaps the finest Indian sculpture is to be found in Java, where at Borobudur, in the eighth and ninth centuries A.D. the descendants of Indian emigrants wrought a long series of mighty masterpieces. As regards paintings we begin with those at Ajanta, produced at intervals between the first century before Christ and perhaps the seventh century of the Christian era. A typical example, in which a mother and her child supplicating Buddha are presented not only with much technical skill but with tenderness of feeling, may be found reproduced in Griffiths' book on Ajanta and in Mr. Havell's Indian Sculpture and Painting. These paintings are true frescoes differing in method from the Italian in little but the use of mechanical as well as chemical combination of colours.

Practically all the work of this time has perished and of the secular art of the period before the Moguls there is scant vestige. With the Moguls for the first time painting becomes frankly secular. Whereas a Hindu philosopher had held "down" that it was unbecoming to represent natural objects when the divinities could be made the artist's subjects, the Islamic dislike of idolatry naturally conduced to the development of secular painting. These Mogul artists were Persians or others, more or less under the influence of the Persian school. Akbar patronised them liberally and Abul Fazl his historiographer records the triumphs of Mr. Sayyid Ali a Persian and Durrant, a Hindu of humble origin whose life, darkened by insanity ended by suicide. The work of these and their fellows is notable for minute finish but it is stiff and in colour often crude.

Mogul Painting

It was in the reign of Jahangir (1605-1627) that Mogul painting reached its highest level, and it is to that period that the Indian painters

of to-day and to-morrow must look for the best models for all work of theirs which is not inspired by Hindu philosophy or religion. The Emperor was himself a consummate connoisseur, capable it is recorded, of discriminating unerringly between the work of the artists of the same school. Sherif Khan Mansur and Abdul Hassan the chief artists of his time were by him highly honoured. The last in fact, owed his training, as well as distinctions and rewards to the Emperor. These and several other painters of the period excelled in portrait-miniatures, of which happily in consequence of the practice of oiling up paintings like MSs and only occasionally exhibiting them to view we have many examples in good condition. These artists are markedly superior to their predecessors in fluency and grace of line and show that they benefited by the closer observation of natural facts inculcated from about 1600 onwards. Many of the outline drawings done with lamp black over a preliminary sketch faintly carried out with a fine brush dipped in Indian red are of exquisite quality. It is noteworthy that though in some cases landscape is well rendered as a mere background, there are no examples in Indian painting of the classic age of pure landscape, here the Indian painter of to-day has to develop an ideal with hardly any suggestion from predecessors. The puritanical and bigoted Aurangzeb was naturally hostile to art and by the middle of the eighteenth century all the glory had departed from Indian painting though a measure of skill in traditional methods long survived and for a time was not unappreciated by Englishmen in India. By the early years of the nineteenth century however Indian painting had virtually ceased to exist. At length a painter arose to be much admired by the worst judges among those Indians whose Western education had made them indifferent to indigenous art without giving them any real interest in European art. This man Ravi Varma, depicted Indian legends as if he were painting figures in amateur tableaux of Indian art traditions there is not a trace in his work which is theatrical, sentimental and of poor quality technically. There have been others who have more successfully assimilated something of Western ideas of art but their work is without interest, except in so far as it exhibits a deplorable subservience to second rate Western teaching. The movement of to-day which arouses high expectations is that in which Mr Abanindranath Tagore is the leader. This artist, member of a Bengali family, noted for culture and command of the poet Rabindranath Tagore has made a close and most profitable study of the work of the Mogul and other painters of India, but he has seen in the examples of their work not something to be slavishly copied but certain principles which he applies freshly in his own way. He has imagination, a sense of composition, a delicate sense of colour and much though as yet per-

haps not quite secure, command of the technical resources of his art. Above all he is sincere. Nowhere is there in his work any deliberate exploitation of the fact that he is an Eastern artist who must at all costs exhibit Nationalism in his painting. One of his pictures representing the spirit of the air is justly famous, and his admirable illustrations to Omar Khayyam issued by the *Studio* have found appreciation in England as well as in India. Among those more or less associated with this painter, who as Vice-Principal of the Calcutta School of Art, is exercising a strong influence within narrow limits may be mentioned Mr Surendranath Ganguly and Mr Vanda Lal Bose the latter of whom has a vein of true poetic feeling and both of whom work in intelligent but not abject obedience of the old tradition of Indian painting. If there is no fourth name at present to put besides those mentioned there is every reason to believe there soon will be several.

Modern Interest.

At the present time there is a marked development of interest among educated Indians in art indigenous to their country but it must be recognised that there is little real knowledge and taste in the public to which the Indian artist of to-day has to address himself. Work is esteemed rather as proof of Indian capacity than for its strict artistic merits. Among those Indians and Europeans who have devoted special attention to the matter there is an unfortunate tendency to exaggerate the value of old Indian art and thus to encourage the belief that the Indian artist of to-day can find no higher task than the repetition of old and narrow conventions. It is perfectly true that we must accept the convention of any art without *a priori* objections but it by no means follows that one convention is as good as another. The question arises what limits a convention sets on those working within it and it is plain that the conventions of Indian art have compelled the exclusion of a vast amount of the Western painter's best material. On the other hand, it should be recognised that his traditions have made it almost impossible for the Indian artist to fall into the common Western error of taking a mere representation of fact to be the aim of art. It is most desirable that the Indian artist of to-day should revive the old traditions that he should be genuinely Indian but it is not desirable that he should needlessly cramp himself because certain enthusiasts assure him that the defects and limitations of classic Indian art are positive merits. The Indian artist has a vast treasure of religious and philosophical matter to draw upon for such subjects as are most congenial to the Hindu genius and he has the whole range of Indian life to observe and create over again. There is no occasion for an unwise asceticism on the ground that ancient conventions ruled out most of the material.

Manners and Customs.

Next to the complexion of the people, which varies from fair to black the tourist's attention in India is drawn by their dress and personal decoration. In its simplest form a Hindu's dress consists of a piece of cloth round the loins. Many an ascetic, who regards dress as a luxury wears nothing more, and he would dispense with even so much if the police allowed him to. The Mahomedan always covers his legs, generally with trousers sometimes with a piece of cloth tied round the waist and reaching to the ankles. Hill men and women who at one time wore a few leaves before and behind and were totally innocent of clothing do not appear to-day within the precincts of civilisation and will not meet the tourist's eye. Children either absolutely nude or with a piece of metal hanging from the waist in front may be seen in the streets in the most advanced cities, and in the homes of the rich the child Krishna with all the jewels on his person, is nude in his pictures and images.

Dress.—The next stage in the evolution of the Hindu dress brings the loincloth nearly down to the feet. On the Malabar coast as in Burma, the ends are left loose in front. In the greater part of India, they are tucked up behind—a fashion which is supposed to befit the warrior or one end is gathered up in folds before and the other tucked up behind. The simplest dress for the trunk is a scarf thrown over the left shoulder or round both the shoulders like a Roman toga. Under this garment is often worn a coat or a shirt. When an Indian appears in his full indigenous dress, he wears a long robe reaching at least down to the calves. The sleeves may be wide, or long and sometimes puckered from the wrist to the elbow. Before Europeans introduced buttons, a coat was fastened by ribbons and the fashion is not obsolete. The Mahomedan prefers to button his coat to the left, the Hindu to the right. A shawl is tied round the waist over the long coat, and serves as a belt in which one may carry money or a weapon if allowed. The greatest variety is shown in the head dress. More than seventy shapes of caps, hats, and turbans may be seen in the city of Bombay. In the Punjab and the United Provinces, in Bengal, in Burma and in Madras other varieties prevail. Cones and cylinders domed and truncated pyramids, high and low with sides at different angles folded brims, projecting brims long strips of cloth wound round the head or the cap in all possible ways ingenuitly culminating perhaps in the "parrot's beak" of the Maratha turban—all these fashions have been evolved by different communities and in different places, so that a trained eye can tell from the head covering whether the wearer is a Hindu, Mahomedan or Parsi and whether he hails from Poona or Dharwar Ahmedabad or Bhavnagar.

Fashion Variations.—Fashions often vary with climate and occupation. The Bombay fisherman may wear a short coat and a cap and may carry a watch in his pocket yet, as he must work for long hours in water he would not cover his legs, but suspend only a coloured kerchief from his waist in front. The fashion of the cold north-west affects loose baggy

trousers, a tall head-dress befitting his stature and covers his ears with its folds as if to keep off cold. The poorer people in Bengal and Madras do not cover their heads, except when they work in the sun or must appear respectable. Many well-to-do Indians wear European dress at the present day, or a compromise between the Indian and European costumes, notably the Indian Christians and Parsis. Most Parsis however have retained their own head-dress, and many have not borrowed the European collar and cuffs. The majority of the people do not use shoes, those who can afford them wear sandals, slippers and shoes, and a few cover their feet with stockings and boots after the European fashion in public.

Women's Costumes.—The usual dress of a woman consists of a long piece of cloth tied round the waist with folds in front, and one end brought over the shoulder or the head. The folds are sometimes drawn in and tucked up behind. In the greater part of India women wear a bodice on the Malabar coast many do not but merely throw a piece of cloth over the breast. In some communities petticoats, or drawers or both are worn. Many Mussalman ladies wear gowns and scarfs over them. The vast majority of Mahomedan women are veiled and their dress and persons are hidden by a veil when they appear in public. A few converts from Hinduism have not borrowed the custom. In Northern India Hindu women have generally adopted the Mussalman practice of seclusion. In the Dekhan and in Southern India they have not.

As a rule the hair is daily oiled, combed, parted in the middle or the head, plaited and rolled into a chignon, by most women. Among high caste Hindu widows sometimes shave their heads in imitation of certain ascetics, or monks and nuns. Hindu men do not, as a rule completely shave their heads, Mahomedans in most cases do. The former generally remove the hair from a part of the head in front, over the temples, and near the neck and grow it in the centre the quantity grown depending upon the fancy of the individual. Nowadays many keep the hair cropped in the European fashion, which is also followed by Parsis and Indian Christians. Most Mussalman grow beards, most Hindus do not, except in Bengal and elsewhere, where the Mahomedan influence was paramount in the past. Parsis and Christians follow their individual inclinations. Hindu ascetics known as Sadhus or Bairagis as distinguished from Saunyas, do not clip their hair, and generally coil the uncombed hair of the head into a crest, in imitation of the god Shiva.

Hindu women wear more ornaments than others of the corresponding grade in society. Ornaments bedeck the head, the ears, the nose, the neck, the arms, wrists, fingers, the waist—until motherhood is attained, and by some even later—and the toes. Children wear anklets. Each community affects its peculiar ornaments though imitation is not uncommon. Serpents with several heads, and flowers, like the lotus, the rose, and the champaka, are among the most popular objects of representation in gold or silver.

Caste Marks.—Caste marks constitute a mode of personal decoration peculiar to Hindus, especially of the higher castes. The simplest mark is a round spot on the forehead. It represents prosperity or joy, and is omitted in mourning and on fast-days. It may be red, or yellowish as when it is made with ground sandalwood paste. The worshippers of Vishnu draw a vertical line across the spot and as Lakshmi is the goddess of prosperity it is said to represent her. A more elaborate mark on the forehead has the shape of U or V generally with the central line, sometimes without it, and represents Vishnu's foot. The worshippers of Shiva adopt horizontal lines made with sandalwood paste or ashes. Some Vaishnavas stamp their temples near the corners of the eyes, with figures of Vishnu's conch and disc. Other parts of the body are also similarly marked. The material used is a kind of yellowish clay. To smear the arms and the chest with sandalwood paste is a favourite kind of toilet, especially in the hot season. Beads of tulsi or sacred Basil, and berries of Rudraksha *ecro erpus garuira*, strung together are worn round their necks by Vaishnavas and Shaivas, respectively. The Lingayats, a Shaiva sect, suspend from their necks a metallic casket containing the linga or phallus of their god. Bhairavis, ascetics besides wearing Rudraksha rosaries round their necks and matted hair smear their bodies with ashes. Religious mendicants suspend from their necks figures of the gods in whose name they beg. Strings of cowries may also be seen round their necks. Muslim devils sometimes carry peacocks feathers.

Hindu women mark their foreheads with a red spot or horizontal line. High caste widows are forbidden to exhibit this sign of happiness, as also to deck themselves with flowers or ornaments. Flowers are worn in the chignon. Hindu women smear their faces, arms, and feet sometimes with a paste of turmeric, so that they may shine like gold. The choice of the same colour for different purposes cannot always be explained in the same way. The red liquid with which the evil eye is averted may be a substitute for the blood of the animal slaughtered for the purpose in former times. In many other cases this colour has no such associations. The Muslim dervish affects green, the Sikhs Akali is fond of blue, the Banuvais adopt orange for his robe, and no reason can be assigned with any degree of certainty.

Shiva.—India is a land of temples, mosques and shrines, and the Hindu finds at every turn some supernatural power to be appeased. Shiva has the largest number of worshippers. He has three eyes, one in his forehead, a moon's crescent in his matted hair and at the top of the coil a woman's face representing the river Ganges. His abode is the Mount Kailas in the Himalayas, from which the river takes its source. Round his neck and about his ears and limbs are serpents, and he also wears a necklace of skulls. In his hands are several weapons, especially a trident, a bow, and a thunderbolt, and also a drum which he sounds while dancing for he is very fond of this exercise. He sits on a tiger's skin, and his vehicle is a white bull. His wife Parvati and his son Ganesh sit on his thighs. An esoteric in an-

ing is attached to every part of his physical personality. The three eyes denote an insight into the past, present and future, the moon, the serpents, and the skulls denote months, years and cycles for Shiva is a personification of Time the great destroyer. He is also worshipped as a Linga or phallus which represents creative energy.

Ganpat.—Ganeah or Ganpati the controller of all powers of evil subject to Shiva, is worshipped by all sects throughout India. Every undertaking is begun with a prayer to him. He has the head of an elephant, a large abdomen, serpents about his waist and wrists, several weapons in his hands, and a piece of his tusk in one hand. He is said to have broken it off when he wanted to attack the moon for ridiculing him. The different parts of his body are also esoterically explained. His vehicle is a rat.

Parvati.—Parvati, the female energy of Shiva, is worshipped under various names and forms. She is at the head of all female supernatural powers, many of whom are her own manifestations. Some are benign and beautiful others terrible and ugly. Kall the tutelary deity of Kallghat or Calcutta, is one of her fierce manifestations. In this form she is black, a tongue smeared with blood projects from her gaping mouth, besides her weapons, she carries corpses in her hands, and round her neck are skulls. Bombay also takes its name from a goddess, Mumbadevi Gouri, to whom offerings are made in Indian homes at an annual festival is benign. On the other hand the epidemic diseases like the plague and small pox are caused by certain goddesses or mothers.

Vishnu. the second member of the Hindu trinity is the most popular deity next to Shiva. He is worshipped through his several incarnations as well as his original personality. His home is the ocean of milk, where he reclines on the coils of a huge, many headed serpent. At his feet sits Lakshmi, shampooing his legs. From his navel issues a lotus, on which is seated Brahma the third member of the trinity. In his hands are the conch, which he blows on the battlefield, and the disc, with which the heads of his enemies are severed. Round his neck are garlands of leaves and flowers, and on his breast are shining jewels. As Shiva represents destruction, Vishnu represents protection, and his son is the god of love. To carry on the work of protection, he incarnates himself from time to time, and more temples are dedicated nowadays to his most popular incarnations, Rama and Krishna, than to his original personality. Rama is a human figure, with a bow in one of his hands. He is always accompanied by his wife Sita, often by his brother Lakshmana, and at his feet or standing before him with joined hands, is Hanuman, the monkey chieftain, who assisted him in his expedition against Ravana the abductor of his wife. Krishna is also a human figure, generally represented as playing on a flute, with which he charmed the damsels of his city esoterically explained to mean his devotees.

Brahma is seldom worshipped only a couple of temples dedicated to him have yet been discovered in all India.

Minor Deities—The minor gods and godesses and the dafted heroes and heroines who fill the Hindu pantheon, and to whom shrines are erected and worship is offered, constitute a legion. Many of them enjoy a local reputation, are unknown to sacred literature, and are worshipped chiefly by the lower classes. Some of them, though not mentioned in ancient literature, are celebrated in the works of modern poets.

The **Jains** in their temples, adore the sacred personages who founded and developed their sect, and venerate some of the deities common to Hinduism. But their view of Divinity is different from the Hindu conception, and in the opinion of Hindu theologians they are atheists. So also the **Buddhists** of Burma pay almost the same veneration to Prince Siddhartha as if he was a god, and indeed elevate him above the Hindu gods, but from the Hindu standpoint they are also atheists.

Images—Besides invisible powers and deified persons, the Hindus venerate certain animals, trees and inanimate objects. This veneration must have originated in gratitude, fear wonder and belief in spirits as the cause of all good or harm. Some of the animals are vehicles of certain gods and goddesses—the eagle of Vishnu the swan of Brahma the peacock of Saraswati Hanuman, the monkey of Rama, one serpent upholds the earth, another makes Vishnu's bed, elephants support the ends of the universe, besides one such animal being Indra's vehicle, the goddess Durga or Kali rides on a tiger, one of Vishnu's incarnations was partly man and partly lion. The cow is a useful animal to the Brahmin vegetarian her milk is indispensable and he treats her as his mother. So did the Bishi of old, who often subsisted on milk and fruits and roots. To the agriculturist cattle are indispensable. The snake excites fear. Stones, on which the image of a serpent is carved, may be

seen under many trees by the roadside. The principal trees and plants worshipped are the Sacred Fig or Pipal, the Banyan, the Sacred Basil the Bilva or Wood Apple the Aoka, and the Acacia. They are in one way or another associated with some deity. The sun, the moon and certain planets are among the heavenly bodies venerated. The ocean and certain great rivers are held sacred. Certain mountains, perhaps because they are the abodes of gods and Rishis are holy. Pebbles from the Gandaki and the Narmada, which have curious lines upon them are worshipped in many households and temples.

Worship—Without going into a temple, one can get a fair idea of image worship by seeing how a serpent-stone is treated under a tree. It is washed, anointed with sandal, decorated with flowers, food in a vessel is placed before it, lamps are waved and the worshipper goes round it and bows down his head, or prostrates himself before the image. In a temple larger bells are used than the small ones that are brought to such a place. Jewels are placed on the idol and the offerings are on a larger scale. Idols are carried in public procession in palanquins or cars. The lower classes sacrifice animals before their gods and goddesses.

Domestic Life—Of the daily domestic life of the people a tourist cannot see much. He may see a marriage or funeral procession. In the former he may notice how a bridegroom or bride is decorated, the latter may shock him for a Hindu dead body is generally carried on a few planks of bamboo lashed together, a thin cloth is thrown over it and the body is tied to the frame. The Mahomedan bier is more decent and resembles the Christian coffin. Some Hindus however carry the dead to the burial ground in a palanquin with great pomp. The higher castes cremate the dead, others bury them. Burial is also the custom of the Muslims and the Parsis expose the dead in Towers of Silence.

Indian Names

The personal name of most Hindus denotes a material object, colour or quality, an animal, a relationship, or a deity. The uneducated man, who cannot correctly pronounce long Sanskrit words, is content to call his child father, brother, uncle, or mother or sister as the case may be. This practice survives among the higher classes as well. Appa Saheb Anna Rao Babaji, Bapu Lal, Bhai Shankar, Tatacharya, Jijibhai are names of this description, with honorific titles added. It is possible that in early society the belief in the re-birth of departed kinsmen lent popularity to this practice. Nothing could be more natural than to call a man white, black or red, gold or silver, gem, diamond, ruby, pearl, or merely a stone, small or tall, weak or strong, a lion, a snake, a parrot, or a dog, and to name a woman after a flower or a creeper. Thus, to take a few names from the epic, Pandu means

white, and so does Arjuna. Krishna black. Bhama terrible. Nakula a mongoose. Shumaka a dog. Shuka a parrot. Shringa a horn. Among the names prevalent at the present day Hira is a diamond. Ratna or Ratan a jewel. Sonu or Chintu gold. Velli or Belli in the Dravidian languages, means white metal or silver. Men are often called after the days of the week on which they were born, and hence they bear the names of the seven heavenly bodies concerned. When they begin to assume the names of the Hindu deities, they practically enter upon a new stage of civilisation. It is doubtful whether the Ahiutas ever venture to assume the names of the dreaded spirits worshipped by them. To pronounce the name of a devil is to invite him to do harm. If the spirits sometimes bear the names of human beings, the reason seems to be that they were originally human.

High-caste practices.—The high caste Hindu, on the other hand, believes that the more often the name of a deity is on his lips, the more merit he earns. Therefore he deliberately names his children after his gods and goddesses, so that he may have the opportunity of pronouncing the holy names as frequently as possible. These are also gorgeous and picturesque. Shiva is happy Vishnu is a pervaer Govinda is the cowherd Krishna Keshava has fine hair Rama is a delighter Lakshmana is lucky Narayana produced the first living being on the primeval waters Ganesha is the Lord of Shiva's hosts Dinakara is the luminary that makes the day Subrahmanya is a brother of Ganesha Sita is a furrow Sairi a ray of light Tara a star Radha prosperity Bhukmi is she of golden ornaments Shama of the glowing heart. Shiva and Vishnu has each got at least a thousand names, and they may be freely drawn upon and paraphrased in naming one's children, and the whole Hindu pantheon is as crowded as it is large. When a mother loses several children, she begins to suspect that some evil spirit has conspired against her and in order to make her off-spring unattractive to the powers of darkness, she gives them ugly names, such as Keri, rubbish, or Urida, dunghill, or Maroba, the mortal. Women are named after rivers, as Sarasvati Ganga, Bhagirathi, Godavari, or Kaveri, just as men are sometimes called after mountains. Many conscious young men not to choose a wife with such a name, perhaps because a river is an emblem of deviance and inconstancy as a hill is an emblem of stability. But the names of rivers have not been discarded. The Burmans have a curious custom. If a child is born on a Monday its name must begin with a guttural, on Tuesday with a palatal, on Thursday with a labial, on Saturday with a dental.

Family names.—When a person rises in importance, he adds to his personal name a family or caste name. It was once the rule that the title Bharna might be added to a Brahman's name, Varma to a Kshatriya, Gupta to a Vaishya and Dasa to a Shudra. This rule is fairly well observed in the case of the first two titles, but the meaning of the other two has changed. Dasa means a slave or servant, and the proudest Brahman cannot deign to call himself the servant of some god. Thma, although Kalidasa, the famous poet, was a Shudra, Ramadas, the famous guru of Shriyaji, was a Brahmin. The Vaishnavas have made this fashion of calling oneself a servant of some god exceedingly popular and in Western India high caste Hindus of this sect very commonly add Das to their names. The Brahmans of Southern India add Aiyer or Aiyangar to their names. Shastri Acharya, Bhat, Bhattacharya, Upadhyaya, Mukhopadhyaya, changed in Bengal into Mukherji, are among the titles indicative of the Brahminical profession of studying and teaching the sacred books. Among warlike classes, like the Rajputs and Sikhs, the title Singh (Lion) has become more popular than the ancient Varma. The Sindhi Mal, as is Ghidmal, means brave and has the same force. Raja, changed into Ray, Rao and Rai was a political title, and is not confined to any caste.

Dutt and Mitra, Sen and Guha, enable one to identify the caste of their bearers, because the caste of a family or clan cannot be changed. A chief of a guild or a town, becomes Chetty a Vaishya title, in Southern India. Mudaliar and Nayadu, meaning leaders, are titles which were assumed by castes of political importance under native rulers. Nayak and Menon are the titles of important castes in Malabar. Ram, Lal, Nand, Chand, are among the additions made to personal names in Northern India. Suffixes like Ji as in Ramji or Jamsheji, the Kanarese Appa, the Telugu Garu, the feminine Bai or Devi, are honorific. Prefixes like Babu, Baba, Lala, Sodhi, Pandit, Raja, and the Burmese Maung are also honorific.

Professional names.—Family names sometimes denote a profession, in some cases they might have been conferred by the old rulers. Mehta Kulkarni Deshpande, Chitnavis, Mahanavis are the names of offices held in former times. One family name may mean a flour seller another a cane-seller and a third a liquor seller. To insert the father's name between one's personal and the family name is a common practice in Western India. It is rare elsewhere. When a family comes from a certain place, the suffix kar or wallah is added to the name of the place and it makes a family surname in Western India. Thus we may have Chipfunkars and Suratwallahs, or without these affixes we may have Bhavnagris, Malabarais and Billimoriais, as among Parsis. Thus Vasudev Pandurang Chipfunkar would be a Hindu whose personal name is Vasudev, father's name Pandurang and family name derived from the village of Chipfun, is Chipfunkar. In Southern India the village name precedes the personal name. The evolution of Muhammadan names follows the same line as Hindu names. But Muslims have no gods or goddesses, and their names are derived from their religious and secular history. These names and titles are often as long and picturesque as Hindu appellations. The agnomens Baksh, Din, Ghulam, Khwaja, Fakir, Kazi, Munsifi, Sheikh, Syed, Begum, Bibi and others, as well as honorific additions like Khan have meanings which throw light of Muslim customs and institutions. The Parsis also have no gods and goddesses, and their personal names are generally borrowed from their sacred and secular history. Their surnames frequently indicate a profession or a place, as in the case of Hindus in Western India. Batliwallah, Readymoney Contractor Saklatwallah, Adenwallah and others like them are tell tale names.

Conversions.—As a rule, a child is named soon after it is born, and in the case of males the appellation is not changed. The higher Hindu castes have a separate ceremony called the name-giving ceremony performed on the twelfth day after birth. When a girl is married in these castes, the husband's family give her a new personal name. When a boy is invested with the sacred thread and is made a twice-born, his name is not changed, but when a man joins an order of ascetics, his lay name is dropped and he assumes a new name. So also when a Burman joins an order of monks or nuns, the lay name is superseded by a Pali name. Christian converts change their original

Big Game Hunting.

From the earliest times India has been famous as a land affording ample pastime for the mighty hunter before the Lord. No country not even Africa has afforded a greater variety of desirable game. The great oxen of India the gaur, the buffalo and the yak found upon its northern confines are unequalled by the bovine animals of any land. The big horn and the white goat of the Rocky Mountains are beyond all measure inferior to the fine sheep and goats that inhabit the precipitous fastnesses of the Himalayas and the Tibetan plains beyond, which though not within the limits of our Eastern Empire, are accessible to sportsmen from India. The tiger has been adjudged by experienced observers to be the greatest and most imposing of felines, to whom even the maned lion must give place, both as regards beauty size ferocity and offensive armature nor is the lion unknown in India, though sadly diminished in numbers and in range of habitat. The Indian elephant is perhaps inferior in size though superior in point of utility to his African congener and India possesses four species of bears which find no counterpart in the Dark Continent Africa again, although abounding in a vast variety of antelopes, can show no stag equal to the bama elagh, the sambar and the spotted deer whilst among all its tribe of antelopes none surpasses the black buck in grace and beauty.

Although the quantity of big game in India has decreased considerably during recent years, there is still no lack of sport for those who have the will to travel far in search of it. The sportsman from Europe, unacquainted with the language and country will find great difficulty in carrying out expeditions in pursuit of big game unless he is provided with suitable introductions. But with the aid of friends among the officials it is still possible for the keen hunter to obtain good sport, although for the best of it he must remain in India during at least a portion of the hot season of the year. It is then that the tigers, which have been wandering over extensive areas during the cold weather, may be more easily brought to bag, for the jungle has thinned out, and the great benefit of thirst have to frequent the vicinity of water which, away from the rivers, is now confined to scanty pools. For hunting the gaur or bison, perhaps the early part of the rainy season is best, when the leaves that in dry weather crackle so loudly under foot have been softened by the fall of the rain. But they also and buffaloes, bears and leopards may well be sought for in the hot weather when the forest, stripped of its leaves, affords them little concealment. The stags which cast their antlers annually must of course be hunted at the proper season the spotted deer in the hot weather and other species during the cold season of the year. The great horned game of the Himalayas, the ibex, markhor and the fine sheep to be found in the mountain fastnesses and in the trans-Himalayan regions must be looked for when the snow admits of the sportsman reaching their habitat. Kashmir may well be revisited in March, but the passes that lead to the roof of the world, where *ovis*

swmos and *ovis poli* are to be found will probably not be open before June or July.

Hunting grounds are to be found throughout the length and breadth of India. Mysore and Burma produce the finest bison, but these splendid animals, though strictly preserved, are to be found also in the forests of the Satpura Hills that paradise of big game. The sportsman with a year at his disposal, provided he has suitable introductions and is prepared to work hard should be able to secure specimens of most of the game animals of India. He might well begin in January in the Central Provinces, where he would find black buck, gazelle, Nilgai, and a variety of small game in the open country and where there should be no difficulty in securing some panthers and sloth bears, sambar, spotted deer and swamp deer. In the hills also he will find barking deer and four horned antelope, while tigers are not uncommon, and in remoter parts buffalo may be met with. About the middle of March the sportsman could go on to Kashmir and find there brown and black bears, ibex markhor and shapoo or coral before crossing into Tibet. He might be fortunate enough to come across a stag that had not yet cast its antlers and falling this, he could get his stag on the return journey towards the end of October or in November. If he has more time at his disposal, Burma might well be visited for there are found several species not to be obtained in India such as the tame, the browantlered deer and the Malayan bear and elephants and rhinoceros might perhaps be met with but this would probably entail an extension of the tour considerably in excess of the twelve months.

It is not advisable to lay down the law as to **rifle and equipment**, but the sportsman may be recommended not to use small bore rifles for dangerous game. A 450 cordite rifle should suffice for big game, and a smaller bore for antelope and gazelle, while a 12-bore gun will be found most useful for feathered game.

The regulations as to the **importation, etc., of arms** include in Bombay the following—

A dealer in arms and ammunition intending to import the same into Bombay must first obtain from the Commissioner of Police a license on payment of Rs 10. Arms and ammunition may be sold by dealers to Europeans (excluding Germans, Austrians and Turks), Anglo Indians (Europeans) Volunteers (not exempt under Item 13, Schedule I, Indian Arms Act Rules) title holders etc. in reasonable quantities or in such quantities as Government may lay down, and for the personal use of the purchaser. During the war no dealer can sell arms or ammunition to any person without a pass to be obtained from the Commissioner of Police. Bombay. Non-exempted persons may be licensed by the Commissioner of Police to possess certain arms and ammunition. They can possess such arms and ammunition only as are mentioned in their license. Exempted persons may import arms and ammunition in reasonable quantities without a license but the weapons, etc. must be declared before the Customs officer on duty.

Routes between India and Europe

The Indian port for the direct journey to and from Europe is Bombay. There are five lines of steamers by which the journey to and from the West can be performed either by sea all the way or—and in some cases only—by sea part of the way and by rail across Europe. They are the P & O, the Anchor Line, the City and Hall Line, and the Marittima Italiana (Italian Mail S N Co). The Natal line steamers are available for Western passages only the steamers sailing round the Cape on their Eastward voyages. There are other services between Calcutta and the West by steamers sailing round Ceylon and several lines connect Colombo with Europe. Of the latter the Orient, the Messageries Maritimes (which also called from Bombay at fortnightly intervals before the war) and the Bibby Lines are the chief besides the P & O. The Bibby service extends to Rangoon. The new railway between India and Ceylon greatly increases the importance of the Colombo route for Southern India. The shortest time between London and Bombay is 14 days.

The war has in some cases seriously interfered with the regularity of the service.

The P & O

The P & O steamers run weekly from Bombay and London, leaving Bombay on

Sunday and London on Saturday. Alternate sailings each way are direct. In other weeks a special steamer runs from Bombay to Aden where it connects with the Australian Homeward Mail and similarly, for the outward voyage, passengers and baggage and mails are transferred on alternate weeks to a steamer at Aden which proceeds thence direct to Bombay. The P & O carry the postal mails. The steamers call at Adeu, Port Said, Marseilles and Gibraltar. Passengers are not usually allowed to land at Aden but there is ordinarily time for them to spend some hours ashore at Port Said and Marseilles and a shorter time at Gibraltar. Passengers may travel westward from Port Said by any of the following methods—

By the liner to Marseilles, thence by special P & O express to Boulogne and so by Falckstone to London or

By Liner to Tilbury Dock

The arrangements for the eastward voyage are similar in reverse order.

Before the changes necessitated by the war passengers could proceed homeward from Port Said by fast special steamer to Brindisi and thence overland by special or express train, or could continue from Port Said by liner and land at Plymouth. Both arrangements are now suspended.

The following are the Ticket rates from Bombay to Europe—

From Bombay (or Karachi)	Single Ticket						Return Ticket (valid 2 years)			
	1st Saloon			2nd Saloon			1st Saloon		2nd Saloon	
	A	B	C	A	B	C	A	B	A	B
	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs	Rs
To London by sea	900	810	720	680	570	1 350	1 215	1 040	990	85
To Marseilles Malta or Gibraltar	840	750	660	630	540	1 260	1 125	990	945	810
To London via Marseilles with ordinary rail ticket	942	852	762	700	610	1 464	1 329	1 194	1 086	950
To Marseilles and returning from London by sea						1 305	1 170	1 035	967-8	832-8
To London via Marseilles and including Special Express (rail and sleeping car ticket)	984	894	804	774	684	1 548	1 413	1 278	1 233	1 098

Free tickets are issued to Karachi passengers by B I S N Co's steamers between Bombay and Karachi for either eastward or westward voyage. The transfer from the B I steamer to the P & O steamer or vice-versa is made in Bombay harbour by launch, without going ashore.

The first saloon inside cabins on the Main deck of the Mail Steamers are let at a reduced rate.

First Saloon passengers are allowed 8 cwt. of personal baggage free of freight. Second Saloon passengers and servants 1½ cwt. each; Children over three and under 12 years of age half these weights, Ayahs and other native servants 1½ cwt. each free.

Anchor Line.

The Anchor Line steamers run between Bombay and Liverpool and there are ordinarily two steamers each way per month. Westward bound steamers call at Marseilles, so that passengers can leave the ship there if they wish. Other calls are at Port Said and Gibraltar. Eastward bound steamers do not call at Marseilles. Free tickets by B I S N Co's steamers are issued to Karachi passengers to and from Bombay. The passage rates westward from Bombay are as follows—

From Bombay (or Karachi)	Single Ticket		Return Ticket (valid 2 years)	
	Saloon	Native Servant	Saloon	Native Servant
	Rs	Rs	Rs	Rs
To Marseilles	255	248		
„ Liverpool	800	261	900	495
„ London overland from Marseilles (1st class rail) and returning from Liverpool	650	238	942	434
„ New York via Liverpool and Glasgow	827	3rd rail)	1 433	(3rd rail)

Some sailings are made homeward via Genoa fares by this route being single fare to Genoa. Rs 225 and to Glasgow Rs 800. Passengers are allowed to take free of charge 40 cubic feet of baggage excess being charged at the rate of a shilling per cubic foot. Dogs are carried and the charge for them is Rs 50 per animal—arrangements must be made with the ship's butcher as to feeding.

The voyage Bombay to Liverpool occupies approximately 30 days. Bombay Agents W & A Graham & Co.

Ellerman's City & Hall Lines

The City and Hall Liners sail westward for the most part from Karachi via Bombay. Some ships go direct from one port and others direct from the other. They sail to Liverpool and passengers can be booked via Marseilles and Overland either Eastward or Westward. Most of the steamers have both first and second class accommodation. Others have one class only. Passengers booking their berths in Karachi for steamers sailing from Bombay are given free tickets from Karachi to Bombay by a British India S N Co's steamer. They are transferred immediately on arrival in Bombay to the Ellerman liner if she is sailing the same day; otherwise they are landed and at the same time informed as to when the steamer for Europe sails.

Adult 1st class passengers are allowed 3 cwt. of luggage free, subject to a limit in measurement of 40 feet. Children and European servants travelling first class are allowed half that quantity. Children and native servants travelling 2nd class are allowed 60 lbs. Bicycles in crates or cases are specially charged for.

Fares from Karachi or Bombay—

From Bombay or Karachi	Single Ticket			Return Ticket (valid 2 years)		
	1st Saloon	2nd Saloon	Native Servant	1st Saloon	2nd Saloon	Native Servant
	Rs	Rs	Rs	Rs	Rs	Rs
to Marseilles	550	420	248	833	630	375
„ Liverpool	900	460	26	900	675	395
„ London via Marseilles (with rail)	680	480	29	1,023	790	434
„ Marseilles returning from Liverpool				867	668	384

Subettina.

Monthly sailings from Bombay for Catania, Messina, Naples, Leghorn and Genoa, Messina ordinarily being reached on the 14th day, Naples on the 15th and Genoa on the 17th. The usual baggage allowances are made and baggage is conveyed free by sea from Port Said to London.

FARES FROM BOMBAY	Single			Return (valid 2 years)		
	First Saloon	Second Saloon	Indian Servant	First Saloon	Second Saloon	Indian Servants
	Rs	Rs	Rs	Rs	Rs	Rs
To Catania, Messina, Naples, Leghorn and Genoa	450	330	180	675	520	277-8
Do (Protestant Missionary rate)	427-8	325				
Do (European Hospital Nurse)	400			600		
To London via Genoa, Turin, Paris, Calais and Dover	560-8	427		896	678	
To London via Genoa, Turin, Paris, Dieppe and Newhaven	546	417		867	659	

*Rs 50 is charged for berth in a single berth cabin. Rs 75 on a return ticket.
The Messageries Maritimes and Marittimi Italiani have a joint arrangement by which passengers taking return tickets may travel one way by one line and back by the other.

Natal Line.

The steamers make their eastward voyages round South Africa. Westward sailings from Bombay to Weymouth usually once a month during the season.

Fares, Bombay to Weymouth (25 days) —First class, Rs. 375 to Rs. 420 according to class of steamer and position of berth. Cheap first class tickets are issued for berths in 2, 3- and 4 berth cabins.

Bibby Line.

Two (in the season, sometimes three) sailings monthly from Rangoon, via Colombo and Marseilles, to Liverpool. Fares from Rangoon and Colombo —

	Single		Return		
	1st Class.		1st Class, available for 4 months from Rangoon	1st Class, available for 2 years	
	From Rangoon	From Colombo	From Rangoon	From Rangoon	From Colombo
	Rs.	Rs.	Rs.	Rs.	Rs.
To Marseilles	575	550	900	1 050	825
To London by sea returning from Liverpool	625	575	1 000	1 100	875
To London by sea returning from London via Marseilles.			1,025	1 150	925
To London via Marseilles	650	625	1 050	1 200	975
To Marseilles returning from Liverpool by sea			950	1 075	850
To London by sea returning from Marseilles			950	1,075	850

Free 1st class tickets, Telexpassenger—Colombo are given to passengers from South India.

Orient Line

Fortnightly sailings (Australasian Mail) on Thursdays from Colombo to Port Said, Naples, Marseilles, Plymouth and London. Fares from Colombo —

From Colombo to	1st Saloon		2nd Saloon		Native Servants	
	Single	Return 2 years	Single	Return 2 years	Single	Return 2 years
	Rs	Rs	Rs	Rs	Rs.	Rs
Suez and Port Said	{ 600 660 780 }	{ 900 980 1 170 }	510 600	765 900	{ 210 210 210 }	315 315 315
Naples Marseilles and Gibraltar	{ 680 720 840 }	{ 960 1 080 1 260 }	540 630	810 945	{ 210 210 210 }	315 315 315
Plymouth and London	{ 690 750 900 }	{ 1 035 1 125 1 350 }	570 660	855 990	{ 240 240 240 }	360 360 360

Concessions for tickets Talsimannar—Colombo, are given to South India passengers. Tickets are issued for native servants.

It used to be possible to obtain cheap passages, eastward or westward, in cargo ("tramp") steamers. These are now next to impossible to secure, because as the steamers are not licensed to carry passengers, passengers have to sign on as members of the crew and the recent extension of the Employers' Liability Act then involves the ship's owners in liability to compensation to them for a variety of causes.

Indian Train Service

The distances and railway fares from Bombay to the principal centres of other parts of India are as follow —

	Miles.	1st Class	2nd Class.
		Rs. a	Rs. a.
Delhi, B.B. & C.I. Railway, via new Nagda-Muttra direct route	865 (28 hours)	66 4	33 3
Delhi, G. I. P. Railway via Agra	957 (28 hours)	66 4	33 3
Simla, via Delhi	1 137	103 6	52 11
Calcutta, G. I. P. from Bombay via Jubbulpore & Allahabad	1 349	90 1	49 9
Calcutta, G. I. P. from Bombay, via Nagpur	1 223	91 1½	45 9½
Madras G. I. P. from Bombay via Rajahmundry	794	68 6	34 4
Lahore, via Delhi	1,162	94 2	47 2

THE SUEZ CANAL

The annual report of the **Suez Canal Company** published in July 1915 states that during the year the number of ships passed through the Canal was 4,802, the net tonnage for the year showing a decrease of 824,889 tons as compared with that of 1913.

The reduction of the transit dues to 6.25 fr. per ton from the 1st January 1913 together with the reduction of tonnage had the effect of reducing the gross receipts which amounted in 1914 to 122,248,858 fr. as compared with 128,660,984 fr. in 1913 and 186,428,831 fr. in 1912.

During the first seven months of 1914 the traffic through the Canal was in excess of that

for the same period of 1913. The receipts however fell after the outbreak of war but the loss occasioned by the diminution of the mercantile traffic was partly compensated by an increased movement of military transports.

The percentage of British vessels and their net tonnage in 1914 was 64.1 and 68.5 respectively as compared with 68 and 60.2 in 1913 and 62.1 and 63.4 in 1912. The percentage of German vessels and their net tonnage was 15.3 and 16.7 in 1913 and 18 and 14.9 in 1912, while the percentage of net tonnage of the other maritime nations using the Canal in 1914 remained practically stationary as compared with the preceding year.

Below are shown the 12 principal users in point of tonnage of which six were British, three (in spite of the war) were German, two were Dutch, and one was French. Preponderance which in 1913 was held by the P&O Line is now given to the Peninsular and Oriental and British India combination though actually the fusion between these two companies only took effect in October 1914 —

Owners	Tonnage	Voyages	
Peninsular and Oriental	12 29 000	2 199 000	460
British India	970 000		
Ellerman Lines —			
Hall Line	625 000	1 389 000	302
City Line	36, 000		
Bucknall Lines	541 000		
Others	56 000		
Alfred Holt & Co. (Ocean and China Mutual)		1 159 000	241
Hansa Line		642 000	100
Nederlandsche Stoomvaart Maatschappij		— 631 000	135
Messageries Maritimes		590 000	103
Rotterdam Lloyd		584,000	140
Hamburg Amerika		587 000	120
Caymer, Irvine and Co		486 000	140
Norddeutscher Lloyd		424,000	76
T and J Harrison		408 000	82
Orient		388,000	46

Improvement Schemes.—It was announced in 1914 that from and after January 1st 1915 the maximum draught of water allowed to ships going through the Suez Canal would be increased by 1 ft, making 16 80 ft English.

The maximum permissible draught of ships using the Canal was 24 4 feet in 1870. In 1890 ships drawing 25 4 feet could make the passage and during the following 24 years the increase has been at the average rate of about 1 foot every six years, thus bringing the maximum draught authorised to 29 feet.

The scheme of improvement adopted by the Company on the recommendation of the International Consultative Committee of Works the British representatives on which are Sir William Matthews and Mr Anthony Ister is a comprehensive one, and the details suggest that it will meet the needs of the big ship.

A 40 foot Channel.—The declared policy of the Canal Company in regard to the deepening of the Canal is to offer a slightly greater depth of water than that available in ports east of Suez. It is claimed that with the exception of Sydney there is no eastern port which at low tide has a greater depth of water than that now provided in the Canal throughout the full length of nearly 105 miles. In any case the work in hand should meet the needs of any ship likely to be built for the eastern trade during the next few years.

When the Canal was opened in 1869 the width was 12 feet and the depth about 26 feet 2 inches. In June, 1913, the width at a depth of 32 feet 8 inches had been increased to a minimum of 147 feet 6 inches over a length of about 85 miles and to a width of 328 feet over a distance of about 20 miles. The latest scheme makes provision for a depth of 40 feet throughout and for a widening up to 180 feet 8 inches in the south section, and the cutting of an appropriate number of sidings in the north and central sections, where a minimum width of 147 feet 6 inches is believed to be sufficient for the requirements of the immediate future.

The work of enlarging the capacity of the Canal presents no special difficulty on the engineering side. A good deal of sand is occasionally driven into the channel at Port Said during storms but a remedy for this will be found in extension of the west breakwater by about 2,700 yards at a cost of over £20,000,000. The construction of this extension which has been in hand for the past two years is making satisfactory progress. The Suez Roads are being adequately dredged in accordance with an agreement between the Egyptian Government and the Company.

The Canal in war time.—On October 22 1914, the British Government issued a notification in the following terms to the represen-

tatives of foreign maritime Powers in London, and asked them to communicate it to their Governments.

Since the outbreak of war certain ships of enemy countries have remained in the Suez Canal.

Some of these vessels were detained by the Egyptian Government on account of hostile acts committed in the Canal, some because there was reason to apprehend that they contemplated hostile acts, others though perfectly free have refused to leave the Canal in spite of the offer of a free pass, thus disclosing their intention to use the ports of the Canal merely as ports of refuge, a measure which is not contemplated by the Suez Canal Convention.

His Majesty's Government do not admit that the Conventional right of free access and use of the Canal enjoyed by merchant vessels implies any right to make use of the Canal and its ports of access for an indefinite time to escape capture, since the obvious result of permitting any such course must be greatly to inconvenience and even to block the use of the ports and Canal by other ships, and they are consequently of opinion that the Egyptian Government are fully justified in the steps which they are taking to remove from the Canal all enemy ships which have been long enough in the Canal ports to show clearly that they have no intention of departing in the ordinary way and that they are putting the Canal and its ports to a use which is inconsistent with the use of the Canal in the ordinary way by other shipping.

Canal Rates.—Speaking at the annual meeting of the P. & O. Company in December 1913 Lord Inchcape chairman said—

The advance of the Suez Canal Company's receipts had been checked by the war. For 1914 the dividend had to be reduced by 45 francs per share. The shareholders accepted the reduction uncomplainingly and dividends were not increased. For 1915 the reduced dividend would again operate and it could only be maintained at the 1914 rate by wiping out the reserve set aside in the previous year. For 1916 the outlook was not bright and the Canal Company proposed to raise their charge by 50 centimes per ton from April 1 next, from 6 25 to 6 75 francs per ton. This would involve the P. and O. and British India Companies in a considerably larger expenditure for passing through the Canal. If the traffic decreased further they might have to face another rise, but if the traffic did not further decrease or improved as they hoped it might the 6 75 rate would remain. When normal conditions returned they hoped the Canal Company would be able to revert to the 6 25 rate, and they looked forward to a gradual reduction from that figure to the 5 francs which they trusted might be ultimately established.

Travel in India.

Twenty years ago, a tour in India was possible only to the wealthy, the leisured and those who had friends in the country. The cost of the journey was very high, the methods of transportation were very slow and the facilities for travel were so indifferent that it was a bold man who consigned himself to the mercuries of the country without a sheaf of letters of introduction. Now the mail which in peace time is posted in London on Friday night reaches Bombay in thirteen and a half days, and the passenger can travel by the same route and with the same speed as the mail. A dozen lines have covered the sea route between Europe and India and Ceylon with a plexus of regular services. The Indian Railways provide fast lines on the trunk lines unsurpassed by the *chemins-de-fer* of Europe, and the Indian hotel has grown into a really comfortable caravan serai.

In the touring season which extends from November to March there is the attraction of a perfect climate. It is never very hot in the North indeed it is really cool it is always fine and fresh and bracing. If there is one country in the world to which that elusive term applies here we have at the season when the tourist arrives the real Indian summer. Then there is its infinite variety. India is in no sense a nation and never will be. Its peoples are wide as the Poles asunder each has its own art, its own architecture its own customs and its own civilisation. A certain superficial resemblance runs through each beneath lies a never-ending variety which age cannot wither nor custom stale.

The Grand Tour—People coming to India for the first time so often ask—"Where shall I go?" Well wherever else the tourist may go, whatever else he should leave out he should omit nothing on The Grand Tour. It is the foolish custom nowadays to sneer at those who follow the beaten tracks, but the visitor who shuns any part of the orthodox journey across India misses what nothing else can repay. Bombay is by far the most convenient point of departure, for here the world and steamers wait, here is one of the finest cities in the British Empire, and here the traveller can best complete his outfit and arrangements. From Bombay stretch northwards the two great trunk lines of India. One the Bombay Baroda and Central India Railway, leads through the pleasant garden of Gujarat to Ahmedabad

the ancient Moslem capital of the Province, containing fine examples of Mahomedans and Jain architecture thence to Abu for the famous Jain temples of Diliwara and on to Ajmere, Jajpur and Agra. The other by the Great Indian Peninsula Railway carries the tourist over the Western Ghats by a superb mountain railway to Gwalior whose rock fortress rises like a giant battleship from the plain and so on to Agra. Of the glories of the Taj Mahal Agra Fort and the deserted city of Fatepur Sikri it were supererogatory to speak. Another easy stage leads to Delhi, that amazing collection of cities, dominated by the Little Ridge where British valour kept the mutinous hordes at bay and finally drove them from the city by a feat of arms unsurpassed in history. Then from Delhi the East Indian line leads comfortably to Benares Lucknow and Calcutta with the opportunity of an excursion to Cawnpore if the spirit moves. The great charm of the Grand Tour is that it reveals the best that India can show. This route has the additional advantage that it fits in with any digressions which the time and purse of the traveller may permit. No one who can spare the time should fail to push northwards from Delhi to Peshawar where the flower of the army keeps watch and ward over the Khyber and up the dread Pass to the eyrie where the fort of Ali Masjid bars the way to all invaders. Calcutta is the best starting point for Darjeeling though unfortunately the magnificent mountain panorama visible from there is often obscured at this season by mists. Then from Calcutta two other natives open. A fine service of mail steamers leads to Burma and one of the unforgettable memories of the East is a voyage down the Irrawaddy from Bhamo or Mandalay to Prome. Again either direct from Calcutta or via Burma, is an easy route to Madras and by way of Madras and Trichinopoly, with their peerless Hindu temples back to Bombay, or on through Tuticorin to Colombo. But indeed the possibilities of expanding this tour are endless. Bombay is the best centre for the rock temples of Elephanta, Kenheri, Karli, Ellora and Ajanta. Calcutta is only a short distance from Puri the one Indian temple where there is no caste and perhaps the most remarkable Hindu temple in the country. From Calcutta also start the river steamers which thread the steamy plains of Bengal and run to the tea gardens of Assam.

Specimen Tours

A number of specimen tours in India are given below. They are taken from one of the publications of Thos. Cook and Son, from whom further information may be obtained. The traveller

will also find he can obtain assistance from the principal Shipping Agents and Railway Companies, or from Messrs. Cox & Co., Messrs. Grindlay & Co. and Messrs. King, King & Co.

	1st Class.	2nd Class Rail, 1st Class Steamer
FROM BOMBAY TO CALCUTTA		
<i>Via the North-West Provinces to Calcutta (including side trip from Calcutta to Darjeeling)</i>	Rs. a.	Rs. b.
TOUR I —From Bombay per B. B. & C. I. Railway via Ahmedabad, Abu Road (for Mount Abu), Ajmer, Jaipur, Delhi, Agra, Cawnpore, Lucknow and Benares to Calcutta, thence to Darjeeling and back to Calcutta	219 8	105 5
TOUR II —From Bombay per G. I. P. Railway via Itanri, Gwalior, Agra, Delhi, Tandu Junction, Cawnpore, Lucknow and Benares to Calcutta, thence to Darjeeling and back to Calcutta	213 9	106 15
FROM BOMBAY TO COLOMBO		
<i>Via the North-West Provinces, Calcutta and Southern India to Colombo (including side trip from Calcutta to Darjeeling)</i>		
TOUR III —From Bombay as in Tour No. I (via B. B. & C. I. Ry. Jaipur and the North-West Provinces) to Calcutta, side trip to Darjeeling and back to Calcutta, thence via Khurda Road for Puri (Jugga-nath), Madras, Tanjore, Trichinopoly, Madras, Danushkodi and Talaimannar to Colombo	320 2	164 14
TOUR IV —From Bombay as in Tour No. II (via G. I. P. Ry. Itanri, Agra and the North-West Provinces) to Calcutta, side trip to Darjeeling and back to Calcutta, thence as in Tour No. III to Colombo (via Southern India)	332 5	168 8
<i>Via the North-West Provinces, Calcutta (including Darjeeling), Burma and Southern India</i>		
TOUR V —From Bombay as in Tour No. I (via B. B. & C. I. Ry. Jaipur and the North-West Provinces) to Calcutta, side trip to Darjeeling and back to Calcutta, thence British India Steamer to Rangoon, Rail to Mandalay, Irrawaddy Steamer to Prome, Rail to Rangoon, British India Steamer to Madras, Rail via Tanjore, Trichinopoly, Madras to Danushkodi, Steamer to Talaimannar and Rail to Colombo	509 15	304 14
TOUR VI —From Bombay as in Tour No. II (via G. I. P. Ry. Itanri, Agra and the North-West Provinces) to Calcutta, thence as in Tour No. V to Colombo	513 2	306 8
FROM BOMBAY TO RANGOON		
<i>Via the North-West Provinces and Calcutta to Rangoon (including a tour in Burma also including a side trip from Calcutta to Darjeeling)</i>		
TOUR VII —From Bombay as in Tour No. I (via B. B. & C. I. Ry. Jaipur and the North-West Provinces) to Calcutta, side trip to Darjeeling and back to Calcutta, thence British India Steamer to Rangoon, Rail to Mandalay, Irrawaddy Steamer to Prome, Rail to Rangoon	383 2	261 0
TOUR VIII —From Bombay as in Tour No. II (via G. I. P. Ry. Itanri, Agra and the North-West Provinces) to Calcutta, side trip to Darjeeling and back to Calcutta, thence British India Steamer to Rangoon, Rail to Mandalay, Irrawaddy Steamer to Prome, Rail to Rangoon	386 5	262 10

	1st Class.	2nd Class Rail, 1st Class Steamer
FROM CALCUTTA TO BOMBAY		
<i>Via the North West Provinces</i>		
TOUR IX—From Calcutta via Benares Lucknow Cawnpore Tundla, Agra Delhi Rewari Jaipur Ajmer (for Udaipur) Abu Road (for Mt. Abu) Ahmedabad and Baroda to Bombay	148 1	71 10
TOUR X—From Calcutta via Benares Moghal Serai Cawnpore Tundla, Agra Delhi Rewari Jaipur Ajmer (for Udaipur) Abu Road (for Mt. Abu) Ahmedabad and Baroda to Bombay	133 14	67 0
TOUR XI—From Calcutta via Benares Moghal Serai Cawnpore Tundla Agra, Gwalior and Itarsi to Bombay	118 3	59 2
TOUR XII—From Calcutta via Benares, Moghal Serai Cawnpore Delhi Muttra, Agra, Gwalior and Itarsi to Bombay	133 8	66 14
CIRCULAR TOUR FROM CALCUTTA		
TOUR XIII—From Calcutta via Benares Lucknow Cawnpore Tundla Agra, Bandikui Jaipur Delhi and Allahabad to Calcutta	167 7	83 13
<i>Extensions Via Southern India to Colombo</i>		
TOUR XIV—From Bombay via Poona, Hyderabad, Wadi, Elachur, Madras, Tanjore, Trichinopoly, Madura, Danushkodi and Talai Mannar to Colombo	130 7	62 10
TOUR XV—From Bombay via Poona, Hyderabad, Wadi, Guntakal, Bangalore, Erode, Trichinopoly, Madura, Danushkodi and Talai Mannar to Colombo	122 7	58 8
<i>Extensions to above Tours</i>		
From Ajmer to Udaipur and return	31 5	15 10
From Abu Road to Mount Abu and return one seat in Tonga (This excursion is strongly recommended the scenery being very beautiful)	7 0	
From Delhi to Lahore and return via Umballa and Amritsar	41 13	20 15
From Delhi via Bhatinda, Ferozepore to Lahore returning via Amritsar, Umballa to Delhi	41 13	20 15
From Calcutta to Darjeeling and return (14 days)	67 5	33 11
From Colombo to Kandy and return	9 0	6 0
From Kuria Road to Puri (Jagannath and return)	5 4	2 10

(All fares subject to change without previous notice)

An Indian Glossary

AKKARI—Excise of liquors and drugs
AKH—A timber tree, *TERMINALIA TOMENTOSA*
AKH AKKARI—A comprehensive account of India under the Mughal Emperor Akbar, (compiled in 1590 by Abul Fazl)

AMIL—A subordinate executive official under native rule in Hind the name is still applied to Hindus of the clerical class

AMROY—A dam or weir across a river for irrigation purposes Southern India.

AUS—The early rice crop, Bengal *syn* Abu, Amam.

AVATAR—An incarnation of Vishnu

BABUL—A common thorny tree, the bark of which is used for tanning, *ACACIA ARABICA*

BAGHRA—A native boat (Buggalow)

BAFRAGI—A Hindu religious mendicant

BAJRA—The bulrush millet a common food-grain, *Pennisetum typhoides syn* cambu, Madras

BAND—A dam or embankment (Bund)

BANDH—A dam (Bund.)

BANYAN—A species of fig tree, *FIGUS INDICA*

BASTI—(1) A village or collection of huts, (2) A Jain temple, Kanara.

BATTA—Lit. discount, and hence allowances by way of compensation

BAHAN—(1) A street lined with shops, India proper (2) a covered market Burma

BER—A thorny shrub bearing a fruit like a small plum *ZIEFPHUS JETURA*.

BHWAR—Name in Central Provinces for shifting cultivation in jungles and hill-sides *syn* taungya, Burma *syn* North Eastern India

BHADOT—Early autumn crop, Northern India reaped in the month Bhadon

BIANG—The dried leaves of the hemp plant, *CANNABIS SATIVA*, a narcotic

BHANWAR—Light sandy soil *syn* bhar

BHARAL—A Himalayan wild sheep, *OVIS MONTANA*

BHUSA—Chaff for fodder

BIDER—A class of ornamental metalwork in which blackened pewter is inlaid with silver named from the town of Bidar Hyderabad

BIGHA—A measure of land varying widely the standard bigha is generally five-eighths of an acre

BLACK COTTON SOIL—A dark coloured soil, very retentive of moisture found in Central and Southern India

BOARD OF REVENUE—The chief controlling revenue authority in Bengal the United Provinces and Madras.

BOE—A thorny tree producing a fruit like a small plum *ZIEFPHUS JETURA*

BRINKAL—A vegetable, *SOLANUM MELON GERA* *syn* egg plant

BUNDER, or *bandar*—A harbour or port.

CADJAN—Palm leaves used for thatch

CHABUTRA—A platform of mud or plastered brick used for social gatherings Northern India.

CHADAR—A sheet worn as a shawl by men and sometimes by women (*Chuddar*)

CHAITTA—An ancient Buddhist chapel

CHAMPAK—A tree with fragrant blossoms, *MICHELIA CHAMPACA*

CHAPATI—A cake of unleavened bread (*Chapatid*)

CHAPRASI—An orderly or messenger Northern India *syn* pattawala, Bombay *syn* Madras.

CHARAS—The resin of the hemp plant *CANNABIS SATIVA* used for smoking

CHAUDHRI—Under native rule a subordinate revenue official at present the term is applied to the headman or representative of a trade guild

CHAUKIDAR—The village watchman and rural policeman

CHAUTH—The fourth part of the land revenue, exacted by the Marathas in subject territories.

CHULA—A pupil usually in connexion with religious teaching.

CHURAHY—A collection of thatched huts or barracks, hence a cantonment.

CHHATRI—A dome or cupola hence a domed building such as a cenotaph.

CHIEF COMMISSIONER—The administrative head of one of the lesser Provinces in British India

CHIKOL—A kind of partridge, *CACCABUS CHUCAR*.

CHINAR—A plane tree, *PLATANUS ORIENTALIS*.

CHINKARA—The Indian gazelle *GAZELLA BENNETTI* often called *rayne deer*

CHITAL—The spotted deer *CERVUS AXIS*.

CHOLAM—Name in Southern India for the large millet, *ANDROPOGON BORGHUM* *syn* jawar

CHOLI—A kind of short bodice worn by women

CHUKAM chuna—Lime plaster

CIRCLE—The area in charge of—(1) A Conservator of forests (2) A Postmaster or Deputy Postmaster General (3) A Superintending Engineer of the Public Works Department

CIVIL SURGEON—The officer in medical charge of a District

COGNIZABLE—An offence for which the culprit can be arrested by the police without a warrant

COLLECTOR—The administrative head of a District in Regulation Provinces corresponding to the Deputy Commissioner in non regulation areas

COMMISSIONER—(1) The officer in charge of a Division or group of Districts (2) the head of various departments, such as Stamps, Excise etc.

CONSERVATOR—The Supervising Officer in charge of a Circle in the Forest Department

COUNCIL BILLS—Bills or telegraphic transfers drawn on the Indian Government by the Secretary of State in Council

COUNT—Cotton yarns are described as 20's, 30's etc counts when not more than a like number of hanks of 840 yards go to the pound avoirdupois

COURT OF WARDS—An establishment for managing estates of minors and other disqualified persons

CROWD KAROR—Ten millions

DACQUT, DAKAIT—A member of a gang of robbers.

DAFFADAR—A non-commissioned native officer in the army or police

DAH OR DAO—A cutting instrument with no point, used as a sword and also as an axe Assam and Burma

DAKAITI DACQUTY—Brobbery by five or more persons

DAL—A generic term applied to various pulses

DAM—An old copper coin, one fortieth of a rupee

DARRAR (1)—A ceremonial assembly especially one presided over by the Ruler of a State hence (2) the Government of a Native State

DARRAM—A Mahomedan shrine or tomb of a saint.

DARI Dhurrie.—A rug or carpet, usually of cotton, but sometimes of wool.

DAROGHA.—The title of officials in various departments now especially applied to subordinate controlling Officers in the Police and Jail Departments.

DARWAZ—A door-keeper

DARWAZA—A gateway

DEBOTTAR—Land assigned for the upkeep of temples or maintenance of Hindu worship.

DEODAR—A cedar *CEDRUS LIBANI* or *C. DEODARA*

DEPUTY COMMISSIONER—The Administrative head of a District in non-regulation areas corresponding to the Collector in Regulation Provinces

DEPUTY MAGISTRATE AND COLLECTOR—A subordinate of the Collector having executive and judicial (revenue and criminal) powers equivalent to Extra Assistant Commissioner in non regulation areas.

DESI—A revenue official under native (Maratha) rule.

DESH—(1) Native country (2) the plains as opposed to the hills Northern India (3) the plateau of the Deccan above the Ghats.

DESHMUT—A petty official under native (Maratha) rule.

DEVA—A deity

DEK—A tree *BUTEA FRAXINOSA* with brilliant salmon-coloured flowers used for dyeing and also producing a gum. syn. palas Bengal Chital Central India.

DEWANSALA—A charitable institution provided as a resting-place for pilgrims or travellers Northern India

DHATURA—A stupefying drug *DATURA METEORICA*.

DHUKUL—Name in Northern India for the lever used in raising water. syn. picotiah

DHOTI—The loincloth worn by men

DISTRICT—The most important administrative unit of area

DIVISION—(1) A group of districts for administrative and revenue purposes under a Commissioner (2) the area in charge of a Deputy Conservator of Forests, usually corresponding with a (revenue) District (3) the area under a Superintendent of Post Offices (4) a group of (revenue) districts under an Executive Engineer of the Public Works Department.

DIWAN—The chief minister in a Native State.

DIWANI—Civil, especially revenue administration now used generally in Northern India of civil justice and Courts.

DOAB—The tract between two rivers, especially that between the Ganges and Jumna.

DRY CROP—A crop grown without artificial irrigation.

DRY RATE—The rate of revenue for unirrigated land.

DUN—A valley Northern India.

DEKA—A small two-wheeled conveyance drawn by a pony, Northern India.

EXTRA ASSISTANT COMMISSIONER—See Deputy Magistrate and Collector

FAMINE INSURANCE GRANT—An annual provision from revenue to meet direct famine expenditure or the cost of certain classes of public works, or to avoid debt.

FARMAN—An imperial (Mughal) order or grant

FAJLDARI—Under native rule, the area under a Fajldar or subordinate governor, now used generally of Magistrates Criminal Courts.

FINANCIAL COMMISSIONER—The chief controlling revenue authority in the Punjab Burma and the Central Provinces

GADDI Gadi—The cushion or throne of (Hindu) royalty

GANJA—The unfertilised flowers of the cultivated female hemp plant, *CANBIS SATIVA* used for smoking

GAUR—Wild cattle, commonly called bison, *BOS GAURUS*

GAYAL—A species of wild cattle *BOS FRONTALIS* domesticated on the North East Frontier, syn. mithan

GHAT Ghaut (1) A landing place on a river (2) the bathing steps on the bank of a tank (3) a pass up a mountain (4) in European usage, a mountain range In the last sense especially applied to the Eastern and Western Ghats

GHATTAL—A tenure holder who originally held his land on the condition of guarding the neighbouring hill passes (ghats) Bengal

GHI Ghee—Clarified butter

GINGELLY—An oilseed *SESAMUM INDICUM* syn. til

GOPURAM—A gateway especially applied to the great temple gateways in Southern India.

GOPAT—Light alluvial soil Gujarat

GOSAIN Goswami—A (Hindu) devotee lit. one who restrains his passions

GOSHA—Name in Southern India for caste women lit. one who sits in a corner syn. parida.

GRAM—A kind of pea *CICER ARABITUM* In Southern India the pulse *DOLICHOS BIFLORUS* is known as horse gram

GUARANTEED—(1) A class of Native States in Central India, (2) A class of railways.

GUR, GOOR—Crude sugar syn. jaggery southern India tanyet Burma.

GURAY—A Himalayan goat antelope, *CEPHEA GORAL*

GURU—(1) A Hindu religious preceptor (2) a schoolmaster Bengal

HAKIM—A native doctor practising the Mahomedan system of medicine.

HALALKHOR—A sweeper or scavenger lit. one to whom everything is lawful food.

HALI—Current. Applied to coin of Native States, especially Hyderabad

HILSA—A kind of fish, *CLUPEA HILSA*.

HOT—An iron pinnacle placed on a pagoda in Burma.

HUKKA.—The Indian tobacco pipe, incorrec-
tly *shag* hookah

IDARH.—An enclosed place outside a town
where Mahomedan services are held on festivals
known as the *Id*, etc.

ILAM.—Lit reward Hence land held
revenue free or at a reduced rate, often subject
to service.

IRUNDATION CANAL.—A channel taken off
from a river at a comparatively high level
which conveys water only when the river is in
flood

JAGGERY jagri.—Name in Southern India
for crude sugar *syn gur*

JAGIR.—An assignment of land or of the
revenue of land held by a Jagirdar

JEMADAR.—A native officer in the army or
police.

JHIL.—A natural lake or swamp Northern
India *syn bil*, Eastern Bengal and Assam

JIHAD.—A religious war undertaken by Mussal-
mans.

JIRGA.—A council of tribal elders, North
West frontier

JOWAR.—The large millet a very common
food grain ANDROPOGON SORGHUM or SOR-
GHUM VULGARIS *syn* cholam and Jola, in South
ern India.

JUDICIAL COMMISSIONER.—An officer exer-
cising the functions of a High Court in the Central
Provinces, Oudh and Sind

KACHERI kachabari.—An office or office build-
ing, especially that of a Government official

KAKAR.—The barking deer CERVUS MUST-
JAG

KALAR, kallar.—Barren land covered with
salt or alkaline efflorescences Northern India

KAMARHARD Cummehund.—A waistcloth, or
belt

KANGAR.—A kind of portable warming pan
carried by persons in Kashmir to keep them-
selves warm.

KANKAR.—Nodular limestone used for metal-
ling roads, as building stones or for preparation
of lime.

KANS.—A coarse glass which spreads and
prevents cultivation especially in Bundelkhand,
SACCHARUM SPONTANEUM.

KANUNGO.—A revenue Inspector

KARAI.—A very venomous snake, BUN-
CARUS CANDIDUS or CAMELEUS.

KARNHARI.—A manager

KARZ.—Underground tunnels near the skirts
of hills, by which water is gradually led to the
surface for irrigation, especially in Beluchistan

KARKUN.—A clerk or writer, Bombay

KARMA.—The doctrine that existence is
conditioned by the sum of the good and evil
actions in past existences.

KARNAM.—A village accountant, Madras
syn *patwari*.

KASI.—Under native rule, a judge admin-
istering Mahomedan law Under British rule,
the *kasi* registers marriages between Mahome-
dians and performs other functions, but has no
powers conferred by law

KHALAKI.—A native fireman sailor, arti-
ficer or tent-pitcher

KHALASA.—Lit. pure. (1) Applied especi-
ally to themselves by the Sikhs, the word *Khalasa*
being equivalent to the Sikh community
(2) land directly under Government as op-
posed to land alienated to grantees etc., North-
western India.

KHARAB.—A gravelly poor soil, Bombay

KHARIF.—The harvest reaped in late autumn

KHAR.—Special in Government hands.
Khas tahasildar, the manager of a Govern-
ment estate.

KHARADAR.—Local levies of foot soldiers,
Afghanistan.

KHAS-KHAS, Khas Khas.—A grass with scented
roots used for making screens which are
placed in doorways and kept wet to cool a
house by evaporation ANDROPOGON MURICATUS.

KHODA kheda.—A stockade into which
wild elephants are driven also applied to
the operations for catching

KHILAT.—A robe of honour

KHITTA.—The weekly prayer for Maho-
medans in general and for the reigning sove-
reign in particular

KINCOB kamkhwab.—Silk textiles brood-
ed with gold or silver

KODALI.—The implement like a hoe or
mattock in common use for digging *syn*
mamoti Southern India

KOS.—A variable measure of distance,
usually estimated at about two miles The
distance between the kos-mihars or milestones
on the Mughal Imperial roads averages a little
over 2 miles, 4 furlongs 150 yards.

KOTHI.—A large house

KOTWAL.—The head of the police in a town,
under native rule The term is still used in
Hyderabad and other parts of India.

KOTWALI.—The chief police station in a
head-quarters town

KULKARNI.—A village accountant, Bombay,
Deccan *syn* *patwari*

KYAUNG.—A Buddhist monastery, which
always contains a school, Burma.

KAKH lac.—A hundred thousand.

KAMHARDAR.—The representative of the co-
shars in a zamindari village, Northern India.

KANGUR.—A large monkey Semnopithecus
entellus.

LAT.—A monumental pillar

LATERITE.—A vesicular material formed
of disintegrated rock used for buildings and
making roads also probably valuable for the
production of aluminium.

LINGAM.—The phallic emblem, worshipped
as the representative of Shiva.

LONGYI.—A waistcloth, Burma.

LOTA.—A small brass water-pot.

LUNGI, loongi.—(1) A turban (2) a cloth
worn by women

MADRASA.—A school especially one for the
higher instruction of Mahomedans.

MAHARAJ.—A native merchant or banker.

MAHAL—(1) formerly a considerable tract of country (2) now a village or part of a village for which a separate agreement is taken for the payment of land revenue (3) a department of revenue, e.g. right to catch elephants, or to take stone

MAHALKARI—A subordinate revenue official Bombay

MAHANT—The head of a Hindu conventual establishment.

MAHARAJA—A title borne by Hindus, ranking above Raja

MAHESHR, mahasir—A large carp, *BARRBUS TOX* (lit. the big-headed)

MAHUA—A tree *BASSIA LATIFOLIA*, producing flowers used (when dried) as food or for distilling liquor and seeds which furnish oil

MAIDAN—An open space of level ground the park at Calcutta

MAJOR WORKS—Irrigation works for which separate accounts are kept of capital revenue and interest

MAKTAB—An elementary Mahomedan school

MALGUMAR (revenue payer)—(1) The term applied in the Central Provinces to a co-sharer in a village held in ordinary proprietary tenure (2) a cultivator in the Chambha State

MANLATDAR—The officer in charge of a taluka, Bombay whose duties are both executive and magisterial syn. tahasildar

MANDAP or **mandapam**—A porch or pillared hall especially of a temple

MARKHOR—A wild goat in North Western India, *CAEPA FALCONERI*

MASJID—A mosque. Jama Masjid, the principal mosque in a town where worshippers collect on Fridays.

MARSHAD—Seat of state or throne Mahomedan syn. gaddi

MATH—A Hindu shrine or conventual establishment

MAULVI—A person learned in Muhammadan law

MAYA—Sanskrit term for delusion

MELA—A religious festival or fair

MIRAB—The niche in the centre of the western wall of a mosque

MIXBAR—Steps in a mosque used as a pulpit

MINAR—A pillar or tower

MINOR WORKS—Irrigation works for which regular accounts are not kept except, in some cases, of capital.

MOONROO—lit. season, but generally applied to the rainy season, or to the regular moisture-laden current of air prevailing at certain seasons

MUFASSAL, mufassil—The outlying parts of a District, Province or Presidency, as distinguished from the head-quarters (Sadar).

MUKADDAM, muccadam—A representative or headman.

MUKHTAR (commonly mudhtiar)—A class of legal practitioners

MUKHTIARKAR—The officer in charge of a taluka, Sind whose duties are both executive and magisterial, syn. tahasildar

MUNG mug—A pulse, *PHASEOLUS RADIX* TUS syn. mung Gujarat.

MUNSHI—Judge of the lowest Court with civil jurisdiction

MURUM moorum—Gravel used for metal-ling roads

NAGARKHANA, nakarkhans.—A place where drums are beaten

NAIB—Assistant or Deputy

NAIK—A leader hence (1) a local chieftain in Southern India (2) a native officer of the lowest rank (corporal) in the Indian army

NAR—A demon or spirit Burma

NAWAB—A title borne by Mussalmans, corresponding roughly to that of Raja among Hindus

NASAR, nasarans—A due paid on succession or on certain ceremonial occasions

NET ASSETS—(1) In Northern India, the rent or share of the gross produce of land taken by the landlord (2) in Madras and Lower Burma the difference between the assumed value of the crop and the estimate of its cost of production

NHWAR—Broad type woven across bedssteads instead of iron slats

NGAPI—Pressed fish or salted fish paste largely made and consumed in Burma.

NILGAI—An antelope *BOSELAPHUS TRAGO* CAMELUS

NIM neim—A tree *MELIA AZADIRACHTA* the berries of which are used in dyeing.

NIRAM—A title borne by the ruler of Hyderabad State

NIRAMAT—A sub-division of a Native State, corresponding to a British District, chiefly in the Punjab and Bhopal

NON-COGNISABLE—An offence for which the culprit cannot be arrested by the police without a WARRANT.

NON-OCCUPANCY TENANTS—A class of tenants with few statutory rights except in Oudh beyond the terms in their leases or agreements

NON REGULATION—A term formerly applied to certain Provinces to show that the regulations of full codes of legislation was not in force in them

NULLAH, NALA—A ravine watercourse, or drain

OCCUPANCY TENANTS—A class of tenants with special rights in Central Provinces, in United Provinces

PADDY—Unhusked rice

PAGA—A troop of horses among the Maras thas

PAGI—A tracker of strayed or stolen animals.

PAIGAR—A tenure in Hyderabad State.

PAIK—(1) A foot soldier, (2) In Assam formerly by applied to every free male above sixteen years.

PAIKY—A palangina or litter

PAN—The betel vine, *PIPE BERTIA*.

STUPA or **stope**.—A Buddhist tumulus, usually of brick or stone, and more or less hemispherical, containing relics.

STRAB.—(1) A province under Mahomedan rule (2) the officer in charge of a large tract in Baroda, corresponding to the Collector of a British District (3) a group of Districts or Division, Hyderabad.

SUBAH DAR.—(1) The governor of a province under Mahomedan rule (2) a native infantry officer in the Indian Army, (3) an official in Hyderabad corresponding to the Commissioner in British territory

SUB-DIVISION.—A portion of a District in charge of a Junior officer of the Indian Civil Service or a Deputy Collector

SUPERINTENDENT.—(1) The chief police officer in a District (2) the official in charge of a hill station (3) the official usually of the Indian Medical Service in charge of a Central Jail

SYCE, **sals**.—A groom.

TANSIL.—A revenue sub-division of a District syn *taluka* Bombay *taluka*, Madras and Mysore township Burma.

TANSHILDAK.—The officer in charge of a *tahsil* syn. *Mamladar* Bombay township officer or *myo-oh*, Burma *mukhtiar* Sind *vahl* *valdar* Baroda. His duties are both executive and magisterial

TAKAVI.—Loans made to agriculturists for seed, bullocks, or agricultural improvements syn. *lagal* Bombay

TALATH.—A village accountant, Gujarat syn. *patwari*

TALAV or **talao**.—A lake or tank.

TALUK, *taluka*.—The estate of a *talukdar* in Ondh. A revenue sub-division of a District, in Bombay Madras and Mysore syn. *tahsil*

TALUKDAR.—A landholder with peculiar tenures in different parts of India. (1) An official in the Hyderabad State, corresponding to the Magistrate and Collector (First *Talukdar*) or Deputy Magistrates and Collectors (Second and Third *Talukdars*) (2) a landholder with a peculiar form of tenure in Gujarat

TANK.—In Southern, Western and Central India, a lake formed by damming up a valley in Northern India, an excavation holding water

TARAI.—A moist swampy tract the term is specially applied to the tract along the foot of the Himalayas.

TARI, *toddy*.—The sap of the date, palmyra, or coconut palm, used as a drink, either fresh or after fermentation In Northern India the juice of the date is called *sandhi*.

TASAR, *tasore*.—Wild silkworms, *ANTHERA PAPIA* also applied to the cloth made from their silk.

TASIA.—Lath and paper models of the tombs of Hassen and Humayn, carried in procession at the *Maharajm* festival syn. *tabut*.

TRAK.—A valuable timber tree in Southern and Western India and Burma, *TRONIA GRANATA*.

TELEGRAPHIC TRANSFER.—See *Consolid M.N.*

THAGI, *Chungoo*.—Robbery after strangulation of the victim.

THAKUR.—(1) The modern equivalent of the caste name *Kshatriya* in some parts of Northern India (2) a title of respect applied to Brahmins (3) a petty chief (4) a hill tribe in the Western Ghats.

THAMIN.—The brow antlered deer, Burma, *CERVUS ELDI*

THANA.—A police station and hence the circle attached to it

TIKA.—(1) Ceremonial anointing on the forehead (2) vaccination

TIL.—An oilseed *SESAMUM INDICUM* also known as *gingelly* in Madras.

TINDAL, *tandel*.—A foreman, subordinate officer of a ship

TOLA.—A weight equivalent to 180 grains (troy)

TSINE.—Wild cattle found in Burma and to the southward *BOS SONDAICUS* syn. *lusang* and *banteng*

UNIT.—A term in famine administration, denoting one person relieved for one day

URIAL.—A wild sheep in North Western India, *OVIS VIGORI*

USAR.—Soil made barren by saline efflorescence, Northern India

VAHIYATDAR.—Officer in charge of a revenue sub-division, with both executive and magisterial functions, Baroda syn. *tahallidar*

VAID or *baldya*, Bengal.—A native doctor practising the Hindu system of medicine.

VAIRI.—(1) A class of legal practitioner, (2) an agent generally

VIHARA.—A Buddhist monastery

VILLAGE.—Usually applied to a certain area demarcated by survey corresponding roughly to the English parish

VILLAGE UNION.—An area in which local affairs are administered by a small committee.

WAKF.—A Muhammadan religious or charitable endowment.

WAZIR.—The chief minister at a Mahomedan court

WET RATE.—The rate of revenue for land assessed for irrigation.

YOGL.—A Hindu ascetic.

YUNANI.—Lit. Greek the system of medicine practised by Mahomedans.

ZAMINDAR.—A landholder

ZAMINDARI.—(1) An estate, (2) the rights of a landholder *zamindar*, (3) the system of tenure in which land revenue is imposed on an individual or community occupying the position of a landlord.

ZARANA.—The women's quarters in a house hence private education of women.

ZIARAT.—A Mahomedan shrine, North-Western Frontier

ZILA.—A District.

The New Capital.

The transfer of the capital of India from Calcutta to Delhi was announced at the Delhi Durbar on December 12, 1911. The reasons for it were stated in despatches between the Government of India and the Secretary of State published at the time. It had long been recognised as necessary, in the interests of the whole of India, to de-provincialise the Government of India, but this ideal was unattainable as long as the Government of India was located in one Province, and in the capital of that Province—the seat of the Bengal Government—for several months in every year. It was also desirable to free the Bengal Government from the close proximity of the Government of India which had been to the constant disadvantage of that Province. To achieve these two objects the removal of the capital from Calcutta was essential. Its disadvantages had been recognised as long ago as 1888 when Sir Henry Maine advocated the change. Various places had been discussed as possible capitals but Delhi was by common consent the best of them all. Its central position and situation as a railway junction added to its historical associations, told in its favour and, as Lord Curzon said in his despatch on the subject, to the races of India, for whom the legends and records of the past are charged with so intense a meaning this resumption by the Paramount Power of the seat of venerable Empire should at once enforce the continuity and promise the permanency of British sovereign rule over the length and breadth of the country.

The foundation stones of the new capital were laid by the King Emperor on December 16, 1911 when His Majesty said—“It is my desire that the planning and designing of the public buildings to be erected will be considered with the greatest deliberation and care so that the new creation may be in every way worthy of this ancient and beautiful city.” Subsequently a town planning committee was appointed—consisting of Captain G. B. C. Swinton, Chairman, and Mr. J. A. Brodie and E. L. Lutyens, members—to advise on the choice of a site for and the lay-out of the capital. Mr. V. Lanchester was subsequently consulted by Government on some aspects of the question. The terms of their original engagement (subsequently renewed) were stated by the Under Secretary of State to be—“The members of the committee will receive their travelling and living expenses, and the following fees for a five months' engagement—Captain Swinton, 500 guineas; Mr. Brodie, 1,750 guineas; Mr. Lutyens, 1,500 guineas. The Secretary of State has also undertaken to refund to the Corporation of Liverpool the amount of Mr. Brodie's salary for the period of the absence.”

Delhi and its environs.—In their first report, dated from Simla, 15th June 1912, the Committee explain that, in dealing with the choice of a site, they felt that the following considerations were paramount and must receive the closest and most continual attention—(a) Health and sanitation, (b) water supply and irrigation supply (c) the provision of ample room for expansion (d) an extent

of land suitable for the location of buildings of various characters and sizes and for the provision of spacious parks and recreation grounds—To be assumed at 10 square miles for the new city and 15 square miles for the Cantonment—(e) Cost of land and the cost of executing necessary works on different sites, (f) facility for external and internal communication, (g) Civil and Military requirements.

On the east of the Jumna they found no suitable site. To the north of Delhi, on the west of the Jumna, where the Durbar camps were pitched they found some general advantages. The area is for example upwind and upstream from the present city of Delhi. The ruins and remains of the Delhis of the past do not cumber the ground. While the external communications might need improvement, the tract is fairly well served by existing railways. Roads and canals and the internal communication could be made convenient without excessive expenditure, and a good deal of money has already been spent on the area. But its disadvantages were found to be overwhelming. The site is too small and much of the land is liable to flooding. Similarly, the western slope of the hills to the south of Delhi the Naraina plain was found unsuitable, mainly because it cannot be considered to be Delhi in destitute of historical associations, and is shut out from all view of Delhi.

Southern site chosen.—The Committee finally selected a site on the eastern slopes of the hills to the south of Delhi on the fringe of the tract occupied by the Delhis of the past. They describe it as follows—“Standing a little to the Delhi side of the village of Malcha, just below the hills almost in the centre of the site and looking towards the Jumna, Shah Jahan's Delhi on the left fills the space between the ridge and the river. Following down from the present city on the forebore of the riverain Firoz Shah's Delhi the site of Indra Prastha, Humayun's fort, Humayun's tomb and Nizamuddin's tomb take the eye in a continuous progress to the rocky eminence on which Ghyasuddin Tughlak erected his fortress city. On the right the Lal Kot, the Kutb the Kila Rai Prithvi, the Siri and Jahan pshan complete the circle of the monuments of ancient Delhi. The mid space in the foreground is filled by Safdar Jan's Mausoleum and the tombs of the Lodi dynasty while to the left, towards Delhi, Jey Singh's gnomons and equatorial dials rise their fantastic shapes.” The land chosen is free from liability to flood, has a natural drainage, and is not manured. It is not cumbered with monuments and tombs needing reverent treatment, and the site is near the present centre of the town of Delhi.

Healthiness of Site.—In February 1913, a Committee consisting of Surg. General Sir C. F. Lukie, Mr. H. P. Keeling, A.M.C.S., and Major J. C. Robertson, I.M.S., was appointed to consider the comparative healthiness of the northern and southern sites. Their report, dated 4th March 1913, states that “the Committee, after giving full consideration to the various points discussed in the above note, is bound to advise the Government of India that no doubt can exist as to the superior

healthiness of the southern site, the medical and sanitary advantages of which are over-whelming when compared with those of the northern site.

Report on Northern Site.—In the same month the Town Planning Committee presented their second report, which dealt with the northern site. This had been elicited by the fact that in December, 1912 Sir Bradford Leale, an engineer with a distinguished Indian career had read a paper before the Indian section of the Royal Society of Arts in London in which he set forth plans for building the new capital on the northern site and producing a fine water effect by a treatment of the river Jumna. This paper aroused considerable attention in England, and its publication synchronised with some letters and articles in the press in India expressing a preference for the northern site. The latter voiced a natural attraction to the north site which the Committee themselves experienced on their first visit to Delhi and enunciated some predilections which the Committee had at one time felt and later abandoned. The Town Planning Committee therefore undertook to review once more, and in greater detail, the arguments for and against the northern site. They came to the conclusion that—The soil is poor on the northern site as compared with the southern. The southern site is already healthy and has healthy surroundings. The northern site even after expenditure on sanitary requirements will never be satisfactory. If the northern site is to be made healthy this involves going outside the site itself and making the neighbourhood healthy also. The building land to the south is generally good. On the north to be used at all it has in places to be raised at considerable cost. There is no really suitable healthy site for a cantonment in proximity to a city on the northern site. The exigencies of fitting in the requirements to the limited area of the northern site endanger the success of a lay-out as a whole and tend to make for cramping and bad arrangement. The result of placing a city on the northern site appears to the Committee to be the creation of a bad example in place of a good one.

Final Town Planning Report.—The final report of the Town Planning Committee with a plan of the lay-out, was dated 20th March, 1913. The central point of interest in the lay-out which gives the motif of the whole in Government House the Council Chamber and the large blocks of Secretariats. This Government centre has been given a position at Raisina hill near the centre of the new city. Advantage is taken of the height of this hill and it is linked with the high ground behind so as to appear as a spur of the ridge itself. Behind the hill a raised platform or forum would be built. This will be flanked by the large blocks of Secretariat buildings and terminated at its western end by the mass of Government House and the Council Chamber, with its wide flight of steps, portico and dome. The forum will be approached by inclined ways with easy gradients on both its north and south sides. The main access to this from the East. The axis of the main avenue centres on the north-west gate of Indraprastha nearly due east of Government House.

Looking from the eastern end of the forum where the broad avenue enters the Governmental centre and where the great stairways are set, the view is towards the East. Right and left the roadways go and lead into one the empire of to-day with the empire of the past and unite Government with the business and lives of its people.

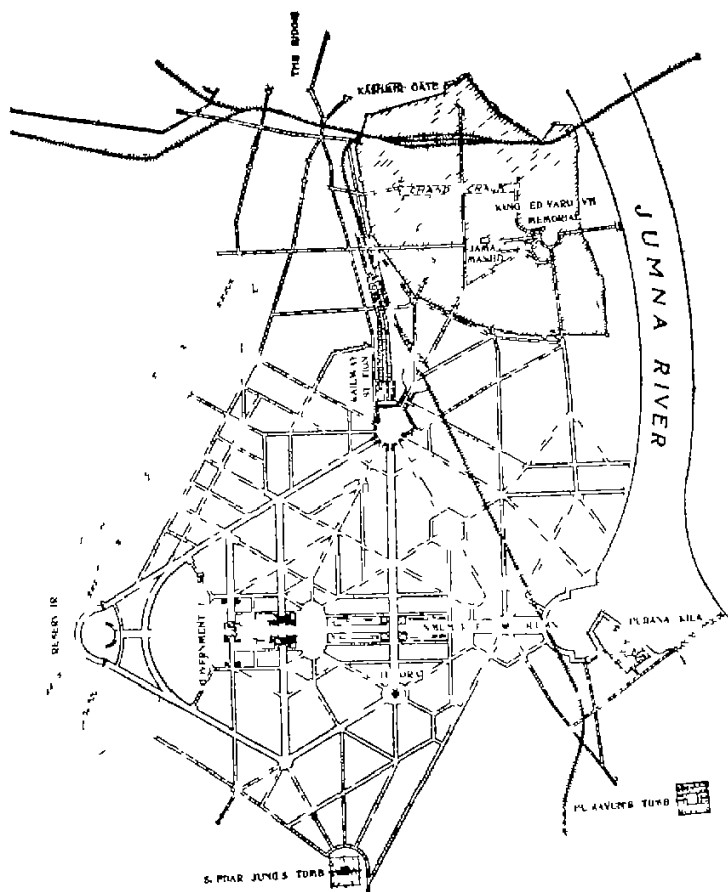
Behind Government House to the west will be its gardens and parks flanked by the general buildings belonging to the Viceroyal estate. Beyond these again on the ridge itself, will be a spacious amphitheatre to be made out of the quarry from which much of the stones for roads and buildings may be cut. Above this and behind it will lie the reservoir and its tower which will be treated so as to break the sky line of the ridge. To the east of the forum, and below it will be a spacious forecourt defined by trees and linked on to the great main avenue or parkway which leads to Indraprastha. Across this main axis, and at right angles to it will run the avenue to the railway station. This will terminate in the railway station the post office and business quarters at its northern end, and in the Cathedral at its southern extremity.

To the south-east will lie the park area in which stand the ancient monuments of Sufdar Jang's Makhbara and the Lohi tombs. This area can be developed gradually as the city expands and has need of public institutions of various kinds. The axis running north-east from the Secretariat buildings to the railway station and towards the Jama Masjid will form the principal business approach to the present city. At the railway station a place will be laid out around which will be grouped the administrative and municipal offices, the banks, the shops and the hotels. On this place the post office is placed in symmetrical relation to the railway station.

The processional route will lead down from the railway station due south to the point where it is intersected by the main east to west axis. Here round a place will be gathered the buildings of the Oriental Institute, the Museum, the Library and the Imperial Record Office. To the south west of the railway station will lie the houses of the local administration and the residences of the European Clerks.

Due south of the forum the residence of the Commander-in-Chief will be placed. Round about the Viceroyal estate and the forum lies the ground destined for the residences of the Members of Council, the Secretaries and other officials of the Government of India. To the south west of Government House lies the club. To the south of the club a low ridge divides the tract into two portions. That to the west is well adapted for a golf-course while the eastern side is assigned for a race-course, the ridge itself offering unusual facilities for locating stands and seeing the races.

Communications.—The avenues range from 800 feet to 600 feet with the exception of the main avenue east of the Secretariat buildings where a parkway width of 440 feet has been allowed. The principal avenues in addition to the main avenues are those running at right angles to the main east to west axis.



Others form part of a system running from the amphitheatre to the railway station and Commander-in-Chief's residence, and from both the latter to the commemorative column, lying on the axis between Indrapat and Government House is the focal point of the roads and avenues on the parkway.

A lake which can be obtained by river treatment is shown on the plan. The lay-out has been made independent of the water effect, but the Committee think that its ultimate creation will enhance enormously the beauties and general amenities of the new capital and it should and would become an integral portion of the design now submitted.

The report contains lengthy recommendations concerning water-supply drainage sewerage system, parks and communications. It is imperative it says — that a complete scheme of railway arrangements designed to serve the whole of the capital, both old and new, should be an essential feature of the lay-out of the Imperial City and this important matter should not be left to be settled when it is too late to deal with it. The main lines of the lay-out as projected by the Committee have been accepted by Government. The expenses of the new central station and the difficulty experienced in meeting the various railway interests concerned will probably necessitate the postponement of this part of the scheme and the needs of New Delhi will be met by a diversion of the existing Agra-Delhi Chord Railway to a line drawn eastward of Humayun's Tomb and Purana Killa and the construction of a new through station near the site of the proposed Central station. Another important modification consists in the reservation of the area lying south of the Delhi and Ajmere Gates of the city for the purpose of the extension of Old Delhi.

Temporary Capital.—For the use of the Government of India during the five years the building of the new capital is expected to occupy—a period that will have to be extended owing to the conditions created by the war—an area has been selected along the Allipur Road between the present civil station of Delhi and the Ridge. The early idea that many of the officials should live under canvas had to be given up, and there are now temporary offices and residences. The architecture and method of construction are similar to those adopted in the exhibition buildings at Allahabad in 1920, but the buildings are expected to outlast the transitional period for which they are intended. They will subsequently be an asset of some value the site they occupy becoming a suburb of the capital.

Chief Commissioner Appointed.—On October 1, 1912, by proclamation there was constituted an administrative enclave of Delhi under a Chief Commissioner, Mr W. M. Halley, I.C.S. The Delhi district of the Punjab from which this enclave was entirely taken, consisted of three tahsils or subdivisions and the enclave was formed by the central tahsil, that of Delhi, and by such part of the southern tahsil, Ballabhgarh, as was comprised within the limits of the police post of Mubarakli. Delhi

square miles to the east of the Jumna river to serve as a grazing ground for the cattle for the city. The total area is, therefore 573 square miles. On the basis of the Census of 1911, the population of the area originally included in the Province is 8,97,000 and of the new area 14,419 or a total of 4,11,400. The population of the Municipal town of Delhi is 2,35,000.

The Architects' Designs.—At the Royal Academy in 1914 there were exhibited drawings by Mr Lutyens and Mr Baker which, though provisional and rather in the nature of what are called Warrant Designs, show how the architectural problems of the new capital are to be solved. Government House and the Secretariat have been planned by them as one block, as it were a Capitol facing towards Indrapat. The Secretariat is to be built on the rock of Raisina hill, the top of which has been levelled for the purpose, behind the Secretariat is to be a raised causeway forming the approach to Government House and Government House itself is to be built on a high basement constructed on an outcrop of rock. The main processional route to Government House is to be along a sloping way (at a gradient of one in 224) which leads from a semi-circular piazza, the "Great Court" to the level of the Secretariat buildings.

At the summit of this sloping way is the "Government Court" a space of about 1,100 feet in length and 400 in breadth, flanked to the north and south by the two blocks of Secretariat buildings. These buildings have been designed by Mr Baker and the aggregate cost will be some £750,000. According to the design the eastern end of each block is marked by deep loggias looking out over the central vista. In the centre of each block is a dome. In the case of the north block this marks an entrance hall in the south block it surmounts a Conference hall with a suite of cloak and reception rooms. Each block contains three floors in the lowest are motor garages, godowns, and record rooms. In the middle floor are the offices of Members, Secretaries and other officers. In the top floor are clerks' rooms. An essential feature of the design, and one which sets the character of the whole building, is the provision of loggias and recessed gateways or exedrae giving views through to the fountain courts situated in the interior of the blocks. The verandah so familiar in Indian buildings is altogether absent. The architect relies for control of temperature on thick external walls with an air space inside, together with the thick window shutters adopted so widely in Southern Europe, and the wide chajjas characteristic of Oriental buildings.

Between the north and south Secretariat blocks is the way into the "Viceroy's Court"—the raised causeway already referred to—leading up to Government House. The Court is about 600 feet in breadth and 1,800 feet in length. It will be treated with grass and water ways and low trees and should form a dignified approach to the final group of buildings. At a point midway in the causeway, roads lead out to the north and south, forming alternative lines of approach to Government House.

One thus reaches the portion of Government House which is raised some twenty

feet above the causeway and fifty feet above the surrounding country. The house itself centres round the great Durbar Hall, a domed structure which dominates the scheme of the buildings surrounding it. Grouped round the Durbar Hall are the State rooms and great stairways from the entrance courts on the north and south sides. In the right wing is the Chamber of the Legislative Council of the Governor General and offices for its Members. In April 1912, the Under Secretary of State indicated in Parliament the decision that this Chamber should be attached to the residence of the Governor General. It has, therefore, been included in the design of Government House but it has been assigned a separate approach through a spacious avenue of its own. The left wing contains the private suites. In the rear of the house will be a raised garden walled and terraced after the manner of the Moghuls, and behind that again, on the level of the surrounding country a park which will contain the staff houses and quarters. The park will lead up to the rocky slopes of the Ridge which closes in the vista on the west. The house which has been designed by Mr. Lutyens will with its attached quarters garden and park, and with the Legislative Council wing, cost approximately £500,000.

Style of Architecture—There had been a prolonged battle of the styles over Delhi and if these designs gave satisfaction to neither of the extreme and opposed schools of thought, they clearly showed an endeavour to apply with due regard for Indian sentiment the spirit and essence of the great traditions of architecture to the solution of structural problems conditioned upon an Indian climate and Indian surroundings and requirements. To use the language of the architects themselves, it has been their aim to express within the limit of the medium and of the powers of its users the deal and the fact of British rule in India of which the New Delhi must ever be the monument.

The inspiration of these designs is manifestly Western, as is that of British rule, but they combine with it distinctive Indian features without doing violence to the principles of structural fitness and artistic unity. Many of the details which will be still more characteristically Indian cannot be displayed at the present stage, for the elaborate ornament and decoration, in which the Indian craftsman excels, can scarcely be shown on large-scale drawings intended mainly to illustrate the general conception of the buildings. Much will depend, moreover, upon the resourcefulness and ability of the Indian artificers themselves whom the Government of India propose to bring together in Delhi to give expression, by their decorative work, to the best traditions of skilled Indian craftsmanship.

Cost of the Scheme—It was at first tentatively estimated that the cost of the new capital would be four million sterling and that sum was given in the original despatch of the Government of India on the subject. A revised estimate was given by H. H. the Viceroy in Council in March 1914. That estimate is as follows:—

(a) Salaries and Allowances, Rs. 70,18,700

(b) Travelling Allowances of Officers and Establishments, Rs. 6,80,000.

(c) Supplies, Services and Contingencies, Rs. 8,78,600

(d) Works Expenditure, (1) Buildings, Rs. 3,59,87,200 (2) Communications, Rs. 29,91,800 (3) Parks and Public Improvements, Rs. 27,84,500 (4) Electric Light and Power, Rs. 43,40,700 (5) Irrigation, Rs. 27,49,000 (6) Water Supply, Sewerage, Drainage, etc., Rs. 78,77,900 (7) Purchase of Tools and Plant, Rs. 35,50,600 (8) Survey Camps and General Preliminary Expenditure, Rs. 42,82,100 (9) Maintenance during Construction, Rs. 20,09,000

(e) Acquisition of Land taken up, Rs. 30,48,200

(f) Other Miscellaneous Expenditure, Rs. 6,000

Deduct anticipated recovery from tools and plant Rs. 10,00,000

These figures when added up make an aggregate total of Rs. 7,67,04,900 or £ 5,11,52,200, but said His Excellency, "as we are anxious to face our liabilities for starting the new City to the fullest extent possible we consider it necessary to make a special provision for contingencies and unforeseen expenditure in excess of the usual provision that has been made of 6 per cent on the works outlay by adding a sum of one and a half crores or £1,000,000. We have accordingly a very large reserve to meet future possibilities, which we are not able to foresee at present. I should add that the expenditure of this additional crore and a half on unforeseen contingencies will be strictly controlled by the Government of India and no part of it spent unless absolutely necessary. On the other hand the project estimate contains certain items such as land, residences, water supply, electric power, irrigation, on which recoveries in the form of rent or taxes will in addition to meeting current expenditure partially at any rate cover the interest on capital outlay while there are other items on which some return account of the sale of leases, general taxes, and indirect receipts may be expected."

Two Cathedral Schemes—In October 1912 a letter was published in *The Times* from the Bishop of Calcutta on the provision of a Cathedral at Delhi. He appealed for £50,000 in addition to any grant given by the Government, and quoted in his letter the following statement of approval by the King Emperor: "I heartily approve of the project to build a Cathedral in the new city of Delhi. I trust that the appeal for the necessary funds may meet with a generous response, so that in due time the capital of India may possess a Cathedral which in design and character will testify to the life and energy of the Anglican Church and be worthy of its architectural surroundings both of days gone by and of those to come." His Majesty subscribed £100 and the Queen £50 to the fund. The Indian Church Aid Association have received several contributions towards the building fund for the proposed Cathedral Church, in response to the appeal of the Bishop of Calcutta.

Cheques may be sent to the Secretary Indian Church Aid Association, Church House, Westminster S W and crossed Lloyds Bank, St. James's Street, S W

A Roman Catholic Cathedral is also projected and Father Paul Hughes, O.M.O., has been touring India collecting money for the Cathedral Fund.

Sanitary Improvements.—While the work on the new city has been going forward various improvements in the existing Delhi have been carried out and the sanitary conditions in particular have been much improved. The dysentery which was extremely bad in Delhi has been much reduced and other schemes have been formulated as the result of a sanitary survey which embraced the whole of the city. In the past Delhi's death rate has consistently exceeded the birth rate, and but for immigration from the outlying districts the population would have gone down. In 1912 the death and birth rates were practically the same and in 1913 the figures per thousand of population were births 43.54 and deaths 43.74. In 1914, the birth rate rose to 49.10 while the

death rate fell to 42.14. There has been a notable decrease in infant mortality. In 1912 the number of deaths was 4,091 and in 1913 they numbered 3,388. The latter number slightly increased however in 1914 when deaths numbered 3,685. The deaths of people of all ages as compared with 1913 have decreased in 1914 from 9,884 to 9,501. Decreases were fewer from 5,820 to 5,091 small pox 106 to 5 plague from 7 to 2 cholera from 24 to 10.

Higher College for Chiefs.—It was proposed during 1914 that a higher college for Chiefs should be established at Delhi and in this connexion a conference of Chiefs and Political Officers was held at Delhi, in March, at which the Viceroy presided. It was subsequently announced that subscriptions offered towards the college amounted to about ten and a half lakhs, various recurring sums were promised and the Government of India also promised to recommend the Secretary of State a grant of Rs. 20,000 a year. Thus the whole capital would come to 12½ lakhs. The proposal is still under consideration.

STOCK EXCHANGES

There are about 365 Share and Stock Brokers in Bombay. They carry on business in the Brokers' Hall bought in 1899 from the funds of the **Share and Stock Brokers Association** formed to facilitate the negotiations and the sale and purchase of Joint Stock securities promoted throughout the Presidency of Bombay. Their powers are defined by rules and regulations framed by the Board of Directors and approved by the general body of Brokers. The Board has the power to fix the rates in times of emergencies. It is composed of Sir Shapurji Broacha (Chairman), Mr. Parbhudas Jivandas (Vice-Chairman), Mr. Maneekjee Pestonji Bharucha, Mr. Shapurjee Sorabjee Mahimvala, Mr. Nasserwanji Pherozshah Karani, Mr. Nagji Motchand, Mr. Hiranand Yashaji, Mr. Bhaladas Goodhas, Mr. Vadilal Panamchand and Mr. Jamnadas Morarji (Secretary).

At first the admittance fee for a broker was Rs. 5 which was gradually raised to Rs. 1,000. There are two classes of Exchange Brokers, Europeans and Indians, the latter being certified for recognition by the native Stock Exchange Business in Government Paper and all other Trustees Authorised Securities is carried on under the rules of the Bombay Stock Exchange, but in the street outside the hall.

For many years the Calcutta Share Market had its meeting place in various gullies in the business quarter and was under no control except that of established market custom. In 1908 the Calcutta Stock Exchange Association was formed, a building was leased in New China Bazar Street now called Royal Exchange Place, a representative committee was formed, and the existing trade customs were focussed into rules drawn up for the conduct of business. Admittance as a member of the Stock Exchange is by vote of the committee and the admittance fee is at present

Rs. 500. The market custom differs very materially from that of most other Stock Exchanges since there are no settlement days, delivery is due the second day after the contract is passed and sales of securities are effected for the most part under blank transfers. Another difference in procedure as compared with the London Stock Exchange is that there are no jobbers in the Calcutta market. The Dealers who take their place, more or less are not compelled to quote a buyer's and a seller's rate and are themselves Brokers as well as dealers, calling upon the Banks and other clients and competing with Brokers.

There are about 150 members, besides outside brokers, the former consisting of European, Jewish Marwari and Bengalee firms. The Marwaris predominate. The volume of bona fide investment business is comparatively small and insufficient for the number of Brokers. The principal business transacted on the Calcutta Stock Exchange is connected with the shares in Jute Mills, Coal Companies, Tea Companies registered in India, Miscellaneous Industrial concerns (such as Paper, Flour, Sugar), Railway and Transit Companies and Debentures, the latter comprising those of industrial concerns and Trustee's Investment Securities, namely Municipal and Port Trust Debentures. When speculative operations are being actively engaged in, which frequently take the form of forward contracts for delivery in three months time, the value of securities changing hands may aggregate as much as a crore of Rupees per month but since the trade is not constant and one year differs very much from another it would be difficult to estimate what the average annual turn over would amount to. The association has an honorary secretary and is not at present affiliated to the Bengal Chamber of Commerce.

Indian Official Reports

(MOSTLY ANNUAL.)

General.—

Statistical Abstract relating to British India (Parliamentary Paper)

Statistics of British India —

Part I—Industrial (Factories Mills Mines, &c)

Part II—Commercial (Foreign Trade and Shipping, &c)

Part III—Commercial Services (Post Office Railways Telegraphs, &c)

Part IV(a)—Finance and Revenue (Paper Currency Coinage Public Debt &c)

Part IV(b)—Finance and Revenue (Principal Heads of Revenue, Salt, Opium &c)

Part V—Area, Population and Public Health (Area, Population Emigration, Births and Deaths, Vaccination, &c)

Part VI—Administrative and Judicial (Administrative Divisions Civil and Criminal Justice Registration Police, Jails &c)

Part VII—Educational (Education, Printing Presses and Publications)

Part VIII—Local Funds (Municipalities, Local Boards, and Port Trusts)

Census Reports (Decennial) India and Provincial

Administration Reports Madras, Bombay, Coorg, United Provinces, Punjab, Bengal, Central Provinces and Berar, Burma, Bihar and Orissa, Assam, Andaman and Nicobar Islands, Civil and Military Station of Bangalore, Ajmer Merwara, Baluchistan, North West Frontier Province, Delhi.

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Report on the Administration of Civil Justice for each Province

Report on the Administration of Criminal Justice for each Province

Report on Jails for each Province

Reports on Police, for each Province and for Bombay Town and Island, Calcutta and Bangalore

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East India Financial Statement (Parliamentary Paper)

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Home Accounts (Parliamentary Paper)

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Mint Reports for Calcutta and Bombay

Paper Currency Department Report.

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Land Revenue &c.—

Land Revenue Administration Provincial Reports for Lower Provinces (Bengal) Bihar and Orissa, Assam, United Provinces, Bombay Presidency (including Sind), Punjab, Central Provinces and Berar, Burma, and Madras

Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act &c., for North-West Frontier Province.

Madras Survey Settlement and Land Records Department Report

Reports of Land Records Departments for Bombay, Burma, Bengal, United Provinces, and Punjab

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Report of the Talukdari Settlement Officer, Bombay

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Report on the Punjab Canal Colonies.

Separate Revenue (Salt, Excise, &c.)—

Salt Department Reports Northern India, Madras, Bombay, Sind, Bengal, Burma, Bihar and Orissa

Excise Report for each Province

Opium Department Reports United Provinces and Bombay

Stamp Department Report for each Province.

Registration Department Report for each Province

Income Tax Report for each Province

Agricultural and Veterinary —

Report on the Progress of Agriculture in India.

Report on the Agricultural Research Institute and College, Fusa

Bulletins of the Agricultural Research Institute, Fusa and of the Provincial Departments of Agriculture

Memoranda of the Department of Agriculture.

Proceedings of the Board of Agriculture.

Agricultural Journal of India (quarterly)

Report of the Department of Agriculture in each Province

Reports on various Agricultural Stations, Experimental Farms, and Botanic Gardens.

Season and Crop Report for each Province.

Agricultural Statistics of India.

Area and Yield of certain Principal Crops.

Report on Production of Tea in India.

Report on Tea Culture in Assam.

Statistics compiled from the Reports of the Provincial Civil Veterinary Departments.

Report of the Camel Specialist

Report of the Imperial Bacteriologist (Veterinary)

Reports of the Civil Veterinary Departments for Madras, Bombay, United Provinces, Punjab, Bengal, Burma, Assam, North West Frontier Province, and Bihar and Orissa.

Co-operative Societies.—

Statements showing Progress of the Co-operative Movement in India.
Report on Co-operative Credit Societies for each Province.
Reports of Conferences of Registrars of Co-operative Credit Societies, India and Provincial.

Forests.—

Review of Forest Administration in British India
Report on Forest Administration for each Province
Reports of the Forest Research Institute and the Imperial Forest College Dehra Dun.
Indian Forest Memoirs
Indian Forest Records.
Forest Bulletins.

Mineral Production and Mines.—

Review of Mineral Production (in Records of Geological Survey)
Report on Production of Coal in India
Report of the Chief Inspector of Mines

Trade and Manufactures.—

Annual Statements of Sea-borne Trade and Navigation, India and Provincial (Madras, Bombay Sind, Bengal, Burma)
Review of the Trade of India (Parliamentary Paper).

Tables of the Trade of India (Parliamentary Paper)

Provincial Reports on Maritime Trade and Customs (including working of Merchandise Mark Act) for Bengal, Bihar and Orissa, Bombay Sind, Madras, and Burma.

Accounts of Sea-borne Trade (monthly and for Calendar Year)

Accounts of Land Trade (monthly)
Annual Statement of Coasting Trade of British India.

Report on the Trade and Navigation of Aden.

Accounts of Trade carried by Rail and River in India.

Report on Inland, Rail borne, or Rail and River borne Trade for each Province.

External Land Trade Reports for Bengal, Bihar and Orissa, Assam, Burma, United Provinces, Punjab, North West Frontier Province, Sind, and British Baluchistan.

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List of Joint-Stock Companies in British India and Mysore

Reports on the working of the Indian Companies Act (Provincial)

Report on the working of the Indian Factories Act for each Province.

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Administration Report on Railways (Parliamentary Paper).

Railways and Irrigation Works. Return of Capital Expenditure, &c. (Parliamentary Paper)

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Report on Financial Results of Irrigation Operations.

Report on Irrigation Revenue for each Province

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Report of the Archaeological Survey of India, and Provincial Reports

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Report on District and Local Boards or Local Funds for each Province

Reports of Port Trusts of Calcutta, Bombay Madras, Rangoon Karachi and Aden.

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Report of the Sanitary Commissioner with the Government of India

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Report of the Sanitary Commissioner for each Province.

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Report on Lunatic Asylums for each Province.

Report of the Chemical Examiner and Bacteriologist for each Province.

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Reports of the All-India Sanitary Conferences

Reports of the Imperial Malaria Conferences.

Indian Journal of Medical Research (Quarterly).

Emigration and Immigration.—

Calcutta Port Emigration Report.

Bengal Inland Emigration Report.

Assam Immigration Report.

Prices and Wages.—

Prices and Wages in India.

Variations in Indian Price Levels.

Reports of Provincial Wage Commissions.

Customs Tariff.*

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The customs revenue is mainly derived from the general import duty, certain special import duties such as those on arms, liquors, sugar, petroleum and tobacco, and an export duty on rice. General import duties, which were abolished in 1862, were reimposed in 1894, since which date the general rate of duty on commodities imported into British India by sea, has been 5 per cent. *ad valorem*. Cotton was exempted in 1894 when the general duties were received, in December 1894 a 5 per cent. duty *ad valorem* was imposed on imported cotton goods and yarns, while an excise duty of 5 per cent. was imposed on all yarns of counts above 20 spun at power mills in British India, in February 1896 cotton yarns and threads imported or manufactured in India were freed from duty, while a uniform 3½ per cent *ad valorem* duty was imposed on all woven cotton goods imported or manufactured in India at power mills. The products of hand looms are exempted. The duties are levied for fiscal purposes and not for the protection of Indian industries. It will be noted that machinery (excluding tools and implements to be worked by manual or animal labour), railway materials, gold, living animals food grains, coal, raw cotton, raw wool, cotton twist and yarn and sewing and darning threads printing materials and books (but not paper) are, among others, on the free list. In 1896-97 the first year of the existing arrangements, the net customs revenue amounted to Rs. 9.45 lakhs and in 1902-03 Rs. 4.26 lakhs. Last year it reached Rs. 7.87 lakhs. The gross revenue from imports, *net excluded*, was Rs. 8.07 lakhs—a decrease of 14 per cent as compared with the customs revenue (Rs. 9.36 lakhs) realized in the previous year.

Schedule II—(Import Tariff)

No	Names of Articles.	Per	Rate per duty
	Arms, Ammunition, and Military Stores. Including also any articles other than those included in Nos 1 to 12 of this schedule which are arm within the meaning of the Indian Arms Act, and any articles which the Governor-General in Council may by notification in the <i>Gazette of India</i> , declare to be "Ammunition or Military Stores" for the purposes of this Act.		Rs. a. p.
1	Firearms other than pistols, including gas and air guns and rifles	Each	50 0 0
2	Barrels for the same whether single or double		30 0 0
3	Pistols		15 0 0
4	Barrels for the same whether single or double		10 0 0
5	Springes used for firearms, including gas and air guns and rifles		8 0 0
6	Gun stocks sights blocks and rollers		5 0 0
7	Revolver breeches for each cartridge they will carry		2 8 0
8	Extractors, nippers, heel plates, pins screws, tangs, bolts thumb-pieces triggers trigger-guards, hammer pistons, plates and all other parts of a firearm (including a gas and air gun or rifle) not herein otherwise provided for, and all tools used for cleaning or putting together or loading the same		1 8 0
9	Machines for making loading or closing cartridges		10 0 0
10	Machines for capping cartridges		2 8 0
	<i>Exception I</i> —Articles falling under the 5th, 6th, 8th 9th or 10th head of the foregoing list when they appertain to a firearm falling under the 1st or 3rd head and are fitted into the same case with such firearm		Free
	<i>Exception II</i> —The following are also free, namely— (a) Arms forming part of the regular equipment of an officer entitled to wear diplomatic, military naval or police uniform (b) A sword a revolver or a pair of pistols, when accompanying an officer of His Majesty's Regular Forces, or a commissioned officer of a volunteer corps, or certified by the commandant of the corps to which such officer belongs, or in the case of an officer not attached to any corps, by the officer commanding the station or district in which such officer is serving, to be imported by the officer for the purposes of his equipment		Free

* Schedules II and III are given without revisions which are expected early in 1918. Schedule IV has been revised.

Schedule II—(Import Tariff)—continued

No	Names of Articles.	Per	Rate of Duty
10	Arms, Ammunition and Military Stores.—contd Machines for capping cartridges.—contd <i>Exception II (g) Morris tubes and patent ammunition, etc.—contd</i> (c) Swords and revolvers which are certified by an Inspector-General of Police to be part of the ordinary equipment of members of the Police force under his charge (d) Swords forming part of the equipment of native commissioned officers of His Majesty's Army (e) Swords for presentations as army or volunteer prizes (f) Arms, ammunition and military stores imported with the sanction of the Government of India for the use of any portion of the military forces of a Native State in India which may be maintained and organised for Imperial Service (g) Morris tubes and patent ammunition when imported by officers commanding British and Native regiments or volunteer corps, for the instruction of their men <i>Proviso 1.—No duty in excess of 10 per cent ad valorem shall be levied upon any of the articles numbered 1 to 10 in the foregoing list when they are imported in reasonable quantity for his own private use by any person lawfully entitled to possess the same</i> <i>Proviso 2.—When any articles which have been otherwise imported and upon which duty has been levied or is leviable under numbers 1 to 10 are purchased retail from the importer by a person lawfully entitled as aforesaid in reasonable quantity for his own private use, the importer may apply to the Customs Collector for refund or remission (as the case may be) of so much of the duty thereon as is in excess of 10 per cent ad valorem and if such Collector is satisfied as to the identity of the articles and that such importer is in other respects entitled to such refund or remission he shall grant the same accordingly</i>		
11	Gunpowder all sorts		
12	All other sorts of arms ammunition and military stores	ad valorem	Ten per cent.

By the Commerce and Industry Department Notification No 3798-90, dated the 27th May 1911, all articles, other than those specified below liable to duty under head, 5, 6, 8, 9 or 10, as the case may be, of the above schedule, were exempted from so much of the duty leviable thereunder on importation into British India as is in excess of duty of 10 per cent ad valorem. —

Main springs and Magazine springs
 Gun-stocks and Breach blocks
 Actions (including skeleton and waster)
 Breach bolts and their heads
 Cocking pieces
 Locks (for Muzzle-Loading arms).
 Machines for making, loading, closing or capping cartridges for rifled arms.

Schedule III—(Import Tariff.)

No.	Names of Articles	Per	Rate of Duty
	Liquors, Opium Salt Fish, Tobacco and Silver		Ra. a. p
1	Liquors (a)—		
	Ale beer and porter	Imperial gallon or 6 quart bottles	0 3 0
	Cider and other fermented liquors		
	Liqueurs and sweetened spirits, cordials, bitters, perfumed spirits, and toilet preparations containing spirit		13 0 0
	Spirit which has been rendered effectually and permanently unfit for human consumption	<i>ad calorem</i>	Five per cent.
	Spirit used in drugs, medicines, or chemicals	Imperial gallon or 6 quart bottles of the Strength of London proof	7 13 0 and the duty to be increased or reduced in pro- portion as the strength of the spirit exceeds or is less than London proof
	Spirit, other sorts		9 8 0 and the duty to be increased or reduced in proportion as the strength of the spirit exceeds or is less than Lon- don proof.
	Wines—		
	Champagne and all other sparkling wines not containing more than 42 per cent of proof spirit	Imperial gallon or 6 quart bottles	3 12 0
	All other sorts of wines not containing more than 42 per cent of proof spirit	,	1 8 0
	Provided that all sparkling and still wines containing more than 42 per cent of proof spirit shall be liable to duty at the rate applicable to 'Spirit other sorts.'		
2	OPIMUM (b) and its alkaloids	seer of 80 tolas	24 0 0
3	SALT (c)—	Indian maund of 82½ lbs avoirdupois weight.	The rate at which excise duty is for the time being leviable on salt manu- factured in the place where the import takes place. (d)

Schedule III—(Import Tariff)—*contd*

No.	Names of Articles.	Per	Rate per duty
LIQUORS, OPIUM, SALT, FISH, TOBACCO AND SILVER— <i>contd.</i>			
4	SALTED FISH, wet or dry	Indian maund of 82½ lbs. avoirdupois weight	Such rate or rates of duty not exceeding twelve annas as the Governor General in Council may by notification in the Gazette of India, from time to time prescribe (c)
5	TOBACCO—		
	Unmanufactured	pound	1 0 0
	Cigars		1 10 0
	Cigarettes weighing less than 3 lb. per thousand	thousand	3 2 0
	Cigarettes weighing 3 lb. or more per thousand	pound	1 4 0
	Manufactured, other sorts		1 2 0
6	SILVER bullion or coin, except current coin of the Government of India which is free	ounce	0 4 0

(c) Spirit imported from any port in British India, and protected by the certificate of an officer empowered in that behalf is chargeable with only the amount, if any, by which the duty leviable thereon exceeds the duty shown by such certificate to have been already paid.—(Act VIII of 1894, Section 7)

(b) Opium imported from any port in British India, and protected by the certificate of an officer empowered in that behalf is chargeable with only the amount, if any, by which the duty leviable thereon exceeds the duty shown by such certificate to have been already paid.—(Act VIII of 1914, Section 7)

(c) Salt imported from any port in British India, and protected by the certificate of an officer empowered in that behalf, is chargeable with only the amount, if any, by which the duty leviable thereon exceeds the duty shown by such certificate to have been already paid.—(Act VIII of 1894, Section 7)

(d) By Finance Department Notification No 1748-Eve dated the 20th March 1907, the duty was fixed at one rupee in the case of Burma Bengal Madras, Bombay and Sind. In case of Aden the duty is one rupee for each 140 lb. avoirdupois

(e) The rate is six annas.

Schedule IV—(Import Tariff)

GENERAL DUTIES

No.	Names of Articles	Per	Tariff Valuation.	Duty
1	ANIMALS LIVING HORSES, CATTLE, SHEEP and all other living animals of all kinds		Rs. a p	Free.
2	ARTICLES OF FOOD AND DRINK, COFFEES	owl.	42 0 0	Five per cent.
3	FRESH AND VEGETABLES (except fresh fruits and vegetables not separately enumerated, which are free)— Almonds without shell	"	82 0 0	"
	" In the shell	"	23 0 0	"
	" (Roasted) Persian	"	75 0 0	"
	" " European	"	45 0 0	"

Schedule IV.—(Import Tariff)—*contd*

No	Names of Articles.	Per	Tariff Valuation	Duty
ARTICLES OF FOOD AND DRINK—<i>contd</i>				
3 FRUITS AND VEGETABLES—<i>contd</i>			Rs a p	
	Cashew or cajoo kernels	cwt	28 0 0	Five per cent.
	Cocoanuts Straits	thousand	75 0 0	"
	" other		75 0 0	"
	" kernel (khopra)	cwt	24 0 0	"
	Currants		25 0 0	"
	Dates, dry in bags		7 12 0	"
	" wet in baskets and bundles	"	5 2 0	"
	" in pots, boxes, tins and crates	"	8 0 0	"
	Figs, Persian dried	"	9 0 0	"
	Garlic	"	3 0 0	"
	Hops			Free.
	Plantain nuts	cwt.	40 0 0	Five per cent.
	Prunes Buzora (alu Bokhara)		ad valorem	"
	Raisins black			"
	" highmish, Persian Gulf			"
	" Munakka	cwt.	12 0 0	"
	other sorts		ad valorem	"
	Walnuts, all descriptions			"
	All other sorts of fruits and vegetables			"
4	GRAIN AND PULSES including broken grain and pulse, but not including flour			Free.
5	MINERAL AND AERATED WATERS and all unfermented and non-alcoholic beverages		ad valorem	Five per cent
6	PROVISIONS, OILMAN'S STORES, AND GROCERIES—			
	Bacon		"	"
	Beef and Pork		"	"
	Beche de mer		"	"
	Butter	lb	1 4 0	"
	Cassava, Tapioca or Sago	cwt.	10 0 0	"
	Cheese		ad valorem	"
	China preserves in syrup	cwt. (net)	24 0 0	"
	" dry, candied	lb	0 5 0	"
	Cocoa	cwt.	4 8 0	"
	Fish-maws		ad valorem	Free.
	Flour			Five per cent.
	Ghi	cwt.	70 0 0	"
	Margarine		ad valorem	"
	Pork hams		"	"
	Shark fins		"	Free
	Singally and scollo		"	"
	Vinegar in cask		ad valorem	Two and one-half per cent.
	" not in casks		"	"
	" Persian		"	Five per cent.
	" Indian		"	"
	All other sorts of provisions, oilman's stores, and groceries		"	"

Schedule IV—(Import Tariff)—*contd.*

No.	Names of Articles.	Per	Tariff Valuation.	Duty
ARTICLES OF FOOD AND DRINK— <i>contd.</i>				
7	Spices—		Rs. s. p	
	Betchnuts, raw whole, split, or sliced, from Goa, Straits and Dutch East Indies	cwt.	14 0 0	Five per cent.
	" " " " " "	"	9 0 0	"
	" whole, from Ceylon	"	11 0 0	"
	" raw split (sun-dried) from Ceylon	"	21 0 0	"
	" all other sorts	"	<i>ad valorem</i>	"
	Chillies, dry	cwt.	12 0 0	"
	Cloves	"	42 0 0	"
	" stems and heads	"	10 0 0	"
	" in seeds, nariavang	"	13 0 0	"
	Ginger dry	"	15 0 0	"
	Mace	lb	1 8 0	"
	Nutmegs	"	0 5 0	"
	" in shell	"	0 5 0	"
	Pepper, black	cwt.	32 0 0	"
	" white	"	58 0 0	"
	All other sorts of spices	"	<i>ad valorem</i>	"
8	SUGAR, crystallised, beet	cwt.	9 12 0	"
	" " and soft, refined in China	"	11 0 0	"
	" " " " from Java, 23 Dutch standard and above	"	9 8 0	"
	" " " " from Java, 16 to 23 Dutch standard	"	8 4 0	"
	" " " " from Java, 15 Dutch standard and under	"	9 8 0	"
	" " " " from Mauritius, equal to 16 Dutch standard and over	"	8 12 0	"
	Molasses from Java	"	2 8 0	"
	" " other countries	"	2 8 0	"
	Sugar, all other sorts, including saccharine produce of all kinds and confectionery	"	<i>ad valorem</i>	"
9	TEA, black	lb	0 10 0	"
	" green	"	0 9 0	"
CHEMICALS, DRUGS, MEDICINES AND NARCOTICS AND DYEING AND TANNING MATERIALS				
10	CHEMICAL PRODUCTS AND PREPARATIONS—			
	Acid, sulphuric		<i>ad valorem</i>	"
	Alkali, Indian (salji khar)	cwt.	2 6 0	"
	Alum	"	5 12 0	"
	Arsenic (China manall)	"	16 0 0	"
	" other sorts	"	<i>ad valorem</i>	"
	Copperas, green	"	"	Two and one-half per cent.
	Explosives namely, blasting gelatine, dynamite, rocketite, gunite, and all other descriptions, including detonators and blasting fuses		<i>ad valorem</i>	Five per cent.
	Sulphur	cwt.	31 0 0	"
	Soda ash	"	3 12 0	"
	Soda bicarbonate	"	5 0 0	"

Schedule IV — (Import Tariff) — *contd.*

No	Names of Articles.	Per	Tariff Valuation.	Duty
	ARTICLES OF FOOD AND DRINK—<i>contd.</i>		Rs. a. p.	
10	CHEMICAL PRODUCTS AND PREPARATIONS—<i>contd.</i>			
	Sulphate of Copper	cwt	10 0 0	Free per cent.
	Sulphur (brimstone) flour	"	5 0 0	"
	" roll	"	5 4 0	"
	" rough	"	ad valorem	"
	All other sorts of chemical products and preparations, including saltpetre, borax, grape-sugar and glucose, but excluding nitrate of soda, muriate of potash, sulphate of ammonia, sulphate of potash, kainit salts, nitrate of lime, calcium cyanamide and mineral superphosphates which are free		"	"
11	DRUGS, MEDICINES AND NARCOTICS—			
	Aloes, black		"	"
	" Socotra		"	"
	Aloe-wood		"	"
	Anti plague serum			
	Anacardium (hing)	cwt	115 0 0	Free. Five per cent.
	" coarse (hingra)		80 0 0	"
	Atary Persian		ad valorem	"
	Benalochan (bamboo camphor)	lb	0 6 0	"
	Brimstone (amalekara)		ad valorem	"
	Calumba root	cwt.	7 0 0	"
	Camphor refined other than powder	lb	1 4 0	"
	Camphor in powder		ad valorem	"
	Cassia lignea	cwt.	20 0 0	"
	China root (dohchinal) rough	"	9 0 0	"
	" scraped	"	17 0 0	"
	Cocaine "		ad valorem	"
	Oubebu	cwt.	85 0 0	"
	Galangal China	"	9 0 0	"
	Pellitory (akalkara)		ad valorem	"
	Peppermint, crystals		"	"
	Quinine and other alkaloids of cinchona		"	"
	Salap	cwt.	140 0 0	Free. Five per cent.
	Benna leaves		ad valorem	"
	Storax, liquid (rose mellos or salarax)	cwt.	53 0 0	"
	All other sorts of drugs, medicines, and narcotics, except opium and tobacco (for which see Schedule III)		ad valorem	"
12	DYING AND TANNING MATERIALS—			
	Alizarine dye, dry, 40 per cent.	lb.	1 8 0	"
	" " " 50 "		1 11 0	"
	" " " 60 "		2 4 0	"
	" " " 70 "	"	2 9 0	"
	" " " 80 "	"	2 14 0	"
	" " " 100 "	"	3 4 9	"
	" " moist 40 "	"	0 7 0	"
	Alizarine dye, moist, 16 per cent.	"	0 8 0	"
	" " " 30 "	"	0 9 0	"
	Indigo blue	"	0 8 0	"
	" dry	"	1 4 0	"
	" salts	"	ad valorem	"

Schedule IV—(Import Tariff)—*contd*

No	Names of Articles.	Per	Tariff Valuation.	Duty
12	DYING AND TANNING MATERIALS—<i>contd</i>		Rs. a p	
	Avar bark	cwt.	3 12 0	Five per cent
	Bhusand (gulpista)		<i>ad valorem</i>	"
	(ochinea)	lb	Rs 1 0 0	"
	Gallnuts (myrabolams)		<i>ad valorem</i>	"
	" Persian	cwt.	31 0 0	"
	Madder or manjit		<i>ad valorem</i>	"
	Orchilla weed		"	"
	Sappon wood and root		"	"
	Turmeric		"	"
	All other sorts of dyeing and tanning materials		"	"
	METALS AND MANUFACTURES OF METALS.			
13	HARDWARE AND CUTLERY , including ironmongery and platedware, and also including machines, tools, and implements to be worked by manual or animal labour [Exceptions, which are free (i) Water-lifts sugar mills, oil presses, and parts thereof, and any other machines and parts of machines ordinary used in processes of husbandry or for the preparation for use or for sale of the products of husbandry which the Governor-General in Council may by notification in the <i>Gazette of India</i> , exempt, (ii) the following agricultural implements, when constructed so that they can be worked by manual or animal power namely winnowers, threshers, mowing and reaping machines, elevators, seed crushers, chaff cutters, root-cutters horse and bullock gears, ploughs, cultivators, scarifiers, harrows, clod-crushers, seed-drills, hay tedders, and rakes, (iii) the following dairy appliances when constructed so that they can be worked by manual or animal power namely cream separators, milk sterilizing or pasteurizing plant, milk aerating and cooling apparatus, churns butter dryers, and butter workers (iv) the following articles used in the manufacture of cotton, namely bobbins, warping forks for looms, healds, heald cords, heald knitting needles, laces, lags and needles for dobbies, pickers (buffalo and others) picking bands, picking levers, picking sticks (over and under) reed, pliers, reeds, shuttles (for power looms), springs for looms, strappings, and welt forks (v) box backs and welts and rough unshaped bobbin ends, when imported by or on behalf of a manufacturer or millowner and certified by him to be intended exclusively for use in his mill]		<i>ad valorem</i>	Five per cent
14	MACHINERY namely, prime-movers and component parts thereof, including boilers and component parts thereof also including locomotive and portable engines, steam rollers, fire-engines, and other machines in which the prime-mover is not separable from the operative parts.			Free
	MACHINERY (and component parts thereof), meaning machines or sets of machines to be worked by electric steam, water, fire or other power not being manual or animal labour, or which, before being brought into use, require to be fixed with reference to other moving parts, and including bolting of all materials for driving machinery			"

Schedule IV—(Import Tariff)—*contd*

No.	Names of Articles	Per	Tariff Valuation	Duty
	METALS AND MANUFACTURES OF METALS—<i>contd</i>.		Rs a. p.	
14	MACHINERY etc.—<i>contd</i> Provided that the term does not include tools and implements to be worked by manual or animal labour and provided also that only such articles shall be admitted as component parts of machinery as are indispensable for the working of the machinery and are, owing to their shape or to other special quality not adapted for any other purpose. <i>Note.</i> —Machinery and component parts thereof made of substances other than metal are included in this entry			
15	METALS, unwrought and wrought, and articles made of metals— Brass ordique and leaves, European		<i>ad valorem</i>	Five per cent.
	China		"	
	patent or yellow metal, sheets weighing 1 lb or above per square foot, and sheathing brasses, and plates	cwt	54 0 0	
	" patent or yellow metal (old) sheets, flat or in rolls, weighing less than 1 lb per square foot		35 0 0	"
	wire		<i>ad valorem</i>	"
	all other sorts		"	"
	Copper, bolt and bar rolled			
	" brasses sheets, plates and sheathing nails and composition nails	cwt.	62 0 0	
	old	cwt.	<i>ad valorem</i> 45 0 0	
	pigs, tiles, ingots, cakes, bricks and slabs		58 0 0	
	" China, white, copperware	lb	2 2 0	
	" foil or tankpana, white, 10 to 11 in X 4 to 5 in.	hundred leaves.	1 14 0	"
	" foil or tankpana, coloured 10 to 11 in X 4 to 5 in.		2 0 0	"
	" wire, including phosphor bronze		<i>ad valorem</i>	"
	" all other sorts, unmanufactured and manufactured, except current coin of the Government of India, which is free		"	"
	German Silver		" *	"
	Gold bullion and coin		<i>ad valorem</i>	Free.
	" leaf		"	Five per cent.
	Iron, anchors and cables		"	One per cent.
	" Lowmoor and similar qualities, all descriptions angle, T other than Lowmoor or Swedish	ton	110 0 0	"
	" " and hoop, other than Lowmoor or Swedish if galvanised, tinned, or lead coated		<i>ad valorem</i>	"
	" Iron bar, Swedish and similar qualities	ton	100 0 0	"
	" " Swedish and similar qualities, nail-rod, round-rod, and square, under half an inch in diameter		200 0 0	"

Schedule IV—(Import Tariff)—*contd.*

No.	Names of Articles.	Per	Tariff Valuation.	Duty
	METALS AND MANUFACTURES OF METALS—<i>contd.</i>		Rs a p.	
15	METALS, UNWROUGHT AND WROUGHT, AND ARTICLES MADE OF METAL—<i>contd.</i>			
	Iron bars, other kinds	ton	110 0 0	One per cent
	" " " " nail rod, round rod, and square, under half an inch in diameter	"	115 0 0	
	" " " " if galvanised, tinned, or lead-coated		<i>ad valorem</i>	
	" beams, joists, pillars, girders, screw-piles, bridge work and other such descriptions of iron, imported exclusively for building purposes			"
	" channels, including channel for carriages		"	"
	" plate and sheet, Swedish and charcoal		"	"
	" bars, plates, and sheets, Swedish and charcoal if galvanised, tinned, or lead-coated		"	"
	" plate, other kinds, above $\frac{1}{4}$ inch thick and strips	ton	120 0 0	"
	" sheets other kinds, up to $\frac{3}{4}$ inch thick	"	125 0 0	"
	" sheets (other than corrugated), plates or strips, other kinds, if galvanised, tinned, lead coated, chequered or planished		<i>ad valorem</i>	"
	" sheets, corrugated, galvanised or black	ton	190 0 0	"
	" hoop	"	140 0 0	"
	" nails, rose, wire, and flat head	cwt.	10 0 0	"
	" other kinds, including galvanised, tinned, or lead-coated		<i>ad valorem</i>	"
	" nuts and bolts, also hooks and nuts for roofing, galvanised or black			"
	" old	cwt.	2 8 0	"
	" pig		<i>ad valorem</i>	"
	" pipes and tubes, including fittings therefor, such as bends, elbows, tees, sockets, flanges, and the like		"	"
	" nails, chains, sleepers and bearing, and fish plates, spikes (commonly known as dog spikes), swivels and crossings other than those described in No. 60, also lever boxes, clips and tie-bars		"	"
	" rick-bowls		"	"
	" ridging, gutting, and continuous roofing		"	"
	" rivets and washers, all sorts		"	"
	" wire, including fencing wire and wire-rope but excluding wire-netting		"	"
	" cans or drums, when imported containing petroleum, which is separately assessed to duty at two annas and six pies per imperial gallon under No 16, namely —			
	Iron, cans, tinned, other than petrol tins of two gallons capacity	can	0 3 6	Five per cent
	" " or drums, not tinned, of two gallons capacity	"	0 2 0	"
	" drums of four gallons capacity —			
	(a) with flange ends	drum	1 0 0	"
	(b) ordinary	"	0 5 0	"

Schedule IV—(Import Tariff)—*contd.*

Names of Articles.	Per	Tariff Valuation	Duty
METALS AND MANUFACTURES OF METALS—<i>contd.</i>		Rs. a. p.	
METALS, unwrought and wrought, and articles made of metals—<i>contd.</i>			
Iron all other sorts including discs or circles and wire netting		<i>ad valorem</i>	Five per cent.
Lametta			"
Lead, all sorts (except sheets for tea chests which are free)			"
Quicksilver	lb.	1 8 0	"
Shot, bird	cwt.	22 0 0	"
Steel anchors and cables		<i>ad valorem</i>	One per cent
" blooms			"
" angle T	ton	110 0 0	"
" " and hoop if galvanised, tinned or lead-coated		<i>ad valorem</i>	"
" bars, (other than cast steel)	ton	110 0 0	"
" " Swedish and similar qualities		<i>ad valorem</i>	"
" nail rod, round rod, and square, under 1/2 inch in diameter	ton	115 0 0	"
" bar galvanised tinned lead coated, planished, or polished		<i>ad valorem</i>	"
" channel including channel for carriages			"
" plates, above 1/2 inch thick and strips	ton	120 0 0	"
" sheets, up to 1/2 inch thick		125 0 0	"
" sheets (other than corrugated) plates or strips, if galvanised tinned, lead-coated, chequered, or planished		<i>ad valorem</i>	"
" sheets, corrugated, galvanised or black	ton	190 0 0	"
" hoop	"	140 0 0	"
" nails		<i>ad valorem</i>	"
" nuts and bolts also hooks and nuts for roofing galvanised or black			"
" old	cwt.	2 8 0	"
" beams, joists, pillars girders, screw-piles, bridge-work, and other such descriptions of steel, imported exclusively for building purposes		<i>ad valorem</i>	"
" cast and blistered, including spring and tub steel			"
" ridging, guttering and continuous roofing			"
" pipes and tubes, including fittings therefor such as bends, boots, elbows, tees, sockets, flanges, and the like		"	"
" rails, chairs, sleepers and bearing, and fish plates, spikes (commonly known as dog spikes), switches, and crossings, other than those described in No. 60 also lever-boxes, clips, and tie-bars		<i>ad valorem</i>	One per cent
" rivets and washers, all sorts		"	"
" wire, including fencing wire and wire-rope, but excluding wire-netting		"	"

Schedule IV —(Import Tariff)— *contd*

No	Names of Articles	Per	Tariff Valuation.	Duty
	OTHER ARTICLES, UNMANUFACTURED AND MANUFACTURED		Rs. a. p.	
17	APPAREL, including drapery haberdashery and millinery and military and other uniforms and accoutrements but excluding cotton, hosiery (for which see No 80) and boots and shoes (for which see No 45) and excluding also uniforms and accoutrements appertaining thereto imported by a public servant for his personal use, which are free		ad valorem	Five per cent
18	ART WORKS OF, except (1) statuary and pictures intended to be put up for the public benefit in a public place, and (2) memorial of a public character intended to be put up in a public place including the materials used or to be used, in their construction whether worked or not, which are			
19	BAMBOOS, common grass hay rushes, straw, and leaves			Free
20	BOOKS, printed, including covers for printed books, maps charts and plans proofs, music, and manuscript			
21	BRISTLES AND FIBRE for brushes and brooms			
22	BRUSHES AND BROOMS, all sorts		ad valorem	Five per cent
23	BUILDING AND ENGINEERING MATERIALS, namely asphalt, bricks and tiles, cement of all kinds, fireclay earthenware piping, lime, and other kinds not otherwise described			
24	CABINETWARE AND FURNITURE			
24a	CHALLENGE CUPS OR TROPHIES which have been won by any military unit (including volunteer corps) or by a particular member or members of any such unit in India or which have been sent by donors resident abroad for presentation or competition in India			Free
	Provided that the articles are certified by the officer commanding the unit or brigade or any higher military authority or any of their staff officers as having been offered for competition or presented with the sole or main object of encouraging military efficiency and that they have had engraved on them before being shipped the object for which presented and except in the case of those sent by donors resident abroad for competition in India the name of the winner or winners.			
25	CARRIAGES AND CARTS including motor cars, bicycles, tricycles, jinrikshas, bath chairs, perambulators, trucks, wheelbarrows and all other sorts of conveyances and component parts thereof, but excluding motor cars designed to carry goods and containing a prime-mover which are free		ad valorem	Five per cent
26	CHINESE AND JAPANESE WARE including lacquered ware, but excluding earthenware, china and porcelain (for which see No. 32)			

Schedule IV—(Import Tariff)—*contd*

No.	Names of Articles,	Per	Tariff Valuation,	Duty
	OTHER ARTICLES, UNMANUFACTURED AND MANUFACTURED— <i>contd</i>		Rs. a. p.	
27	CLOCKS, WATCHES, and other time-keepers, and parts thereof		ad valorem	Five per cent.
28	COAL, COKE, AND PATENT FUEL			Free.
29	CORDAGE, ROPE, and twine made of any vegetable fibre		ad valorem	Five per cent.
30	COTTON, AND ARTICLES MADE OF COTTON— Cotton raw " twist and yarn " sewing and darning thread " piece-goods, hosiery, crocheted cotton thread, and all other manufactured cotton goods not otherwise described			Free. " " Three and one-half per cent.
31	EARTH, COMMON CLAY AND SAND			Free
32	EARthenWARE (except earthenware piping, for which see No. 23), china, china clay porcelain and imitation or false coral		ad valorem	Five per cent.
33	FANS OF ALL KINDS, except common palm-leaf fans, which are free		"	"
34	FIREWORKS all sorts, including fulminating powder		"	"
35	FLAX, AND ARTICLES MADE OF FLAX, including linen thread		"	"
36	FURNITURE, TACKLE, AND APPARATUS, not otherwise described, for steam, sailing, rowing, and other vessels		"	"
37	GUMS, GUM RESINS, and articles made of gum or gum-resin— Copal Cutch and gambier (natural) Gamboge Gum Ammoniac " Arabic " Bdellium " Benjamin ras " cowrie " Gyalbul (opacine myrrh) " Olibanum or frankincense " Persian (false) Myrra Rosin All other sorts of gums, gum-resins, and articles made of gum or gum-resin, including caoutchouc and gutta-percha	cwt. lb cwt. " " cwt. " " " " cwt. " " cwt. " " " ad valorem	20 0 0 1 12 0 80 0 0 18 0 0 34 0 0 80 0 0 28 0 0 12 0 0 10 0 0 10 0 0 ad valorem	" " " " " " " Free. Five per cent. " "
38	HEMP, including Manila hemp, and articles made therefrom		"	"

Schedule IV —(Import Tariff)—*contd.*

No	Name of Article	Per	Tariff Valuation.	Duty
	OTHER ARTICLES UNMANUFACTURED AND MANUFACTURED—<i>contd.</i>		Rs a. p	
39	HIDES AND SKINS (except raw or salted hides and skins, which are free) including parchment and vellum gold beater skins, and all other descriptions of hides or skins		<i>ad valorem</i>	Five per cent. free.
40	HORN articles made of not otherwise described		<i>ad valorem</i>	Five per cent.
41	INSTRUMENTS, APPARATUS AND APPLIANCES and parts thereof—Computing, Dental Distilling Diving Drawing Educational Electric Electric Lighting Galvanic, Measuring Musical, Optical, Philosophical Phonographic, Photographic (including materials for Photography) Scientific Surgical Surveying, Telegraphic Telephonic, Typewriters, and all other sorts, except Telegraphic instruments and apparatus and parts thereof, when imported by or under the orders of a railway company and any instruments, apparatus, and appliances when imported by a passenger as part of his personal baggage and in actual use by him in the exercise of his profession or calling which are free. All band instruments (other than stringed instruments) imported by a Native regiment of His Majesty's regular forces in India or by a unit of the Imperial Service Troops or by a Military Police Battalion, and certified by the Officer Commanding the regiment or unit or the officer in charge of the Military Police Battalion to be for the bona fide exclusive use of the regimental band, or the band attached to the Military Police Battalion, as the case may be, and the following accessories thereto are also free of duty — Bags for bagpipes. Cardholders. Carriages (brown or black) Cases for reeds and mouth pieces. Cases (leather or wooden) Obanians pipe and practice. Cleaners for brass and reed instruments. CORD for bagpipes Crooks. Drummers for bagpipes Drum heads. Drum sticks. Drum flesh hoops. Fingertops Green broadcloth for drums Green Silk Ribbon for drums. Key pads for reed instruments. Ligatures for reed instruments. Mouthpieces and caps therefor Mutes for brass instruments. Pipe tassels for bagpipes. Reeds. Ribbons for bagpipes. Ropes for drums Sanks and slides for brass instruments. Silver buckles for drums. Silver buttons for drums. Springs. Staves. Taps for brass instruments. Valve conks. Valve tops and needles.			

Schedule IV—(Import Tariff)—*contd.*

No.	Names of Articles.	Per	Tariff Valuation	Duty
	OTHER ARTICLES UNMANUFACTURED AND MANUFACTURED—<i>contd.</i>		Rs. a. p.	
42	IVORY AND IVORY WARE—			
	Unmanufactured—			
	Elephants' grinders	cwt	300 0 0	Five per cent
	tusks (other than hollows, centres, and points) each exceeding 30lb in weight and hollows, centres, and points each weighing 10lb and over	"	300 0 0	"
	Elephants' tusks (other than hollows, centres, and points) not less than 10lb and not exceeding 30lb each, and hollows, centres, and points each weighing less than 10lb		700 0 0	"
	Elephants' tusks each less than 10lb (other than hollows, centres, and points)		450 0 0	"
	Sea-cow or moys teeth, each not less than 4lb		175 0 0	"
	Sea-cow or moys teeth each not less than 3lb and under 4lb	"	150 0 0	"
	Sea-cow or moys teeth, each less than 3lb		120 0 0	"
	All other sorts, manufactured and unmanufactured		<i>ad valorem</i>	"
43	JEWELLERY AND JEWELS, including plate and other manufactures of gold and silver—			
	Silverware, plain	tola	1 2 0	"
	embossed or chased		1 6 0	
	All other sorts, except precious stones and pearls, uncut, which are free		<i>ad valorem</i>	"
44	Jute raw			Free.
	" articles made of, except second-hand or used gunny bags, which are free		<i>ad valorem</i>	Five per cent.
45	LEATHER, and articles made of leather including boots and shoes, harness and saddlery, except saddlery of a military pattern imported by an officer of His Majesty's regular forces and forming part of the equipment with which he is required to supply himself under Army Regulations, which is free			"
46	MALT			"
47	MANURES of all kinds including animal bones			Free.
48	OILCAKE, also bran, fodder and cattle-food of all kinds			"
49	OIL-CLOTH AND FLOOR-CLOTH including lincrease, linoleum, and tarpaulins		<i>ad valorem</i>	Five per cent.
50	PAINTS, COLOURS, PAINTERS' MATERIALS and compounds for application to leather, wood and metals—			
	Lead, red, dry	cwt.	20 0 0	"
	" white, dry	"	22 0 0	"
	Ochre, other than European, all colours	"	4 5 0	"
	Paints, composition		<i>ad valorem</i>	"
	patent driers		"	"
	Turpentine	Imperial gallons.	8 0 0	"
	Verdigris		<i>ad valorem</i>	"
	Vermilion, Canton	box of 90 bundles.	110 0 0	"
	Zinc, white, dry		<i>ad valorem</i>	"
	All other sorts including glue and putty		"	"

Schedule IV—(Import Tariff)—*contd*

No	Names of Articles	Per	Tariff Valuation.	Duty
	OTHER ARTICLES, UNMANUFACTURED AND MANUFACTURED— <i>contd</i>		Rs a p	
51	PAPER, PAPERBOARD, MILLBOARD, AND CARDBOARD of all kinds including ruled or printed forms and account and manuscript books; labels advertising circulars sheet or card almanacs and calendars Christmas Easter and other cards including cards in booklet form including also waste paper and old newspapers for packing but excluding trade catalogues and advertising circulars imported by packet book, or parcel post, which are free PAPER, articles made of paper and papier mache		ad valorem	Five per cent
52	PERFUMERY— Gowla husked and unhusked	197	60 0 0	
	Kapurkachri (sedoary)		20 0 0	
	Patch leaves (patchouli)		15 0 0	
	Rose-flowers dried		25 0 0	
	Rose-water	Imperial gallon	2 8 0	
	All other sorts, except perfumed spirit (for which see Schedule III)		ad valorem	
53	PITCH TAR AND DAMMER— Bitumen Dammer Pitch American and European coal Tar American and European " coal " mineral			" " " "
54	PLANTS AND BULBS living, also dried for herbaria			Free
55	PRECIOUS STONES AND PEARLS, unset (including the stones generically known as Cambay stones such as agates, cornelians, and onyx)			"
56	PULP of wood straw rags paper and other materials			"
57	PRINTING AND LITHOGRAPHING MATERIAL, namely presses type ink, brass rules composing sticks, chase, imposing tables, and lithographic stones stereo-blocks, roller moulds, roller frames and stocks roller composition, standing screw and hot presses, perforating machines gold blocking presses, stereotyping apparatus, metal furniture, paper folding machines, and paging and numbering machines, but not including paper			"
58	BAGS			"
59	BLOCKS for the withering of tea leaf			"
60	RAILWAY MATERIAL for permanent-way and rolling stock, namely cylinders, girders, and other material for bridges, rails sleepers bearing and fish plates, fish bolts, chairs, spikes, crossings, sleeper fastenings switches, interlocking apparatus, brake gear couplings and springs, signals, turn tables, weigh-bridges engines, tenders, carriages, wagons traversers trolleys, tractors, and component parts thereof also the following articles when imported by or under the orders of a railway company namely, cranes, water cranes, water tanks, and standards, wire and other materials for fencing.			"

Schedule IV—(Import Tariff)—*contd.*

No.	Names of Articles	Per	Tariff Valuation,	Duty
	OTHER ARTICLES, UNMANUFACTURED AND MANUFACTURED—<i>contd.</i>		Rs a p	
	Provided that for the purpose of this exemption "railway" means a line of railway subject to the provisions of the Indian Railways Act, 1880 and includes a railway constructed in a Native State under the suzerainty of His Majesty and also such trainways as the Governor General in Council may, by notification in the <i>Gazette of India</i> , specifically include therein			
61	SEEDS , except oil-seeds imported into British India by sea from the territories of any Native Prince or Chief in India which are free— All sorts		<i>ad valorem</i>	Five per cent.
62	SHELLS AND COWRIES— Chanks—large shells for canoes " white, live " dead Cowries Cowries, bazar common " yellow superior quality " Maldivé " Sankhili Mother-of-pearl nacre Nakhils Tortoise-shell " nakh All other sorts, including articles made of shell not otherwise described			
			"	"
			"	"
		cwt.	4 0 0	"
			5 0 0	"
			7 0 0	"
			140 0 0	"
		cwt.	105 0 0	Free
		lb	19 0 0	Five per cent.
		"	5 8 0	"
			<i>ad valorem</i>	"
63	SHIPS AND OTHER VESSELS for inland and harbour navigation, including steamers, launches, boats and barges, imported entire or in sections			Free
64	SILK AND ARTICLES MADE OF SILK— Bokhara Flims Piece-goods Sewing thread, China Raw silk—Yellow Shanghai, including re-reeled from Indo-China, and places in China other than Shanghai including re-reeled Mathow Pashan Persian Siann White Shanghai, Thomkoon or Duppon " " other kinds, including re-reeled " " other kinds of China, including re-reeled Waste and Kachira All other sorts, including cocoons	lb	6 0 0	Five per cent
			<i>ad valorem</i>	"
			"	"
		lb	6 0 0	"
		"	5 2 0	"
		"	3 8 0	"
		"	2 8 0	"
		"	4 8 0	"
		"	3 8 0	"
		"	3 8 8	"
		"	6 4 0	"
		"	7 4 0	"
			<i>ad valorem</i>	"
			"	"
65	SKIN		"	"

Schedule IV—(Import Tariff)—*contd.*

No.	Names of Articles.	Per	Tariff Valuation	Duty
OTHER ARTICLES UNMANUFACTURED AND MANUFACTURED—<i>contd.</i>				
66	SPECIMENS ILLUSTRATIVE OF NATURAL SCIENCE, including also antique coins and medals			Free.
67	STATIONERY excluding paper (for which see No. 51).		<i>ad valorem</i>	Five per cent.
68	STONE AND MARBLE and articles made of stone and marble		"	"
69	TALLOW AND GREASE, including stearine		"	"
70	TEA CHESTS of metal or wood, whether imported entire or in sections, provided that the Customs Collector is satisfied that they are imported for the purpose of the packing of tea for transport in bulk			Free.
71	TEXTILE FABRICS, not otherwise described		<i>ad valorem</i>	Five per cent.
72	TOILET REQUISITES not otherwise described		"	"
73	TOYS including toy books and requisites for all games		"	"
74	UMBRELLAS, parasols, and sunshades of all kinds		"	"
75	WALKING STICKS and sticks for umbrellas, parasols, and sunshades of all kinds, mounted and unmounted, driving riding, and other whips, fishing rods and lines		"	"
76	WOOD AND TIMBER (except firewood, which is free), and articles made of wood, not otherwise described		"	"
77	WOOL, raw, articles made of, including felt		<i>ad valorem</i>	Free. Five per cent.
78	ALL OTHER ARTICLES, manufactured or unmanufactured, not described in this Schedule		"	"

Schedule V—(Import Tariff).

No.	Names of Articles.	Per	Rate of duty
1	Rice husked or unhusked including rice flour but not including rice bran and rice-dust which are free	Indian mounds of 82 lb avoirdupois weight.	Rs. s. d. 6 3 0

Note.—Under Act IX of 1908 a customs duty at the rate of a quarter of a pie per pound has been levied from the 1st April 1908 on all tea produced in India and exported from any customs port to any port beyond the limits of British India or to Aden. The proceeds of this cess are paid to the Tea Cess Committee appointed under Section 4 of the Act. On the recommendation of this Committee the maximum rate of a quarter of a pie per pound may be reduced.

Botanical and Zoological Surveys.

The Botanical Survey is under the direction of the Superintendent of the Royal Botanic Garden, Calcutta, with whom are associated the Economic Botanists belonging to the Agricultural Department. In 1912 the post of Reporter on Economic Products was abolished and replaced by that of Economic Botanist to the Botanical Survey. Much of the systematic botanical work of India is done for the department by forest officers and others. Over 2,000 specimens were obtained in 1911-12 by the officer deputed to accompany the Abor Expedition as botanist, and a material addition was made to the information available as to the vegetation of the little-known frontier region traversed.

Geological Survey—The first object of the Department is the preparation of a general geological map of India. Various economic investigations, which form an increasingly important part of the Department's work, are also conducted. These include investigation of marble and sandstone quarries for the purpose of building Imperial Delhi, the examination of the Korea coal field in the Central Provinces, of petroleum localities in the Punjab and North West Frontier Province, of pitchblende areas in the Gaya District, &c.

Mammal Survey—An important movement has recently been inaugurated by the Bombay Natural History Society which has collected subscriptions for a survey of the mammals of India. This Survey was begun in 1911 with the object of getting together properly prepared specimens of all the different kinds of Mammals in India, Burma and Ceylon so that their distribution and differences might be more carefully worked out than had been done before, also to form as complete as possible a collection of specimens for the Society's Museum in Bombay. Before the Survey started the Society had a very small collection and even in the British Museum in London the Indian specimens were very poorly represented. Three trained collectors from England are in the service of the Society and the specimens obtained by the Survey are being worked out at the British Museum and duplicates presented to the different Indian Museums. In India most of the country has been worked on the West Coast from Coorg as far north as Mount Abu, also the Central Provinces, Kumaon and Bengal. The whole of Ceylon has been worked, and so has a considerable part of Burma. At the present time owing to the war only one collector is in the field in Sikkim the others having gone to the front. Funds for the Survey were raised by subscription from the principal Native Chiefs and some prominent Bombay citizens together with grants from the Government of India, the Government of Ceylon, the Government of Burma, the Government of the Malay States, and the different local Governments as well as donations from the Royal Society the British Museum and the Zoological Society of London.

The Board of Scientific Advice.—This Board includes the heads of the Meteorological, Geological, Botanical, Forest, and

Survey Departments, representatives of the Agricultural and Civil Veterinary Departments, and other scientific authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry to ensure that research work is distributed to the best advantage, and to advise the Government of India in prosecuting practical research into those questions of economic or applied science on the solution of which the agricultural and industrial development of the country so largely depends. The programmes of investigation of the various departments are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done as well as a general programme of research for the ensuing year. The reports and the programmes formulated are communicated for consideration to an Advisory Committee of the Royal Society who from time to time furnish valuable suggestions and advice.

The Secretary to the Government of India (Department of Revenue and Agriculture) is *ex-officio* President of the Board which includes the Director General of Observatories, the Superintendent of the Indian Museum, the Surveyor General of India, the Principal, Punjab Veterinary College, the Director of the Indian Institute of Science, the Inspector General of Forests, the Agricultural Adviser to the Government of India, the Director of the Geological Survey, the Director General, Indian Medical Service, the Secretary to the Government of India, Public Works Department, and the Director of the Botanical Survey of India who is Secretary to the Board of Scientific Advice.

The programme of the various departments for 1915-16 includes the following. The Meteorological Department will continue observational work with pilot balloons at various stations and will also do some experimental work on vertical air currents at Agra, besides collating charts representing types of weather with notes giving explanations and references to other cases of occurrence of the same type for daily weather forecasting. In the Astronomical Department a new spectro-heliograph is under construction which it is hoped will be completed during the year. Five more seismographs two at Simla two at Calcutta, and one at Bombay, the Avine Seismograph at Kodakanal and several instruments of local manufacture at Bombay will be kept in use during the year. A botanical survey is being carried out, and the Economic Botanist will improve and arrange his exhibits. Plant breeding and plant improvement work will be continued on wheat, tobacco, grain, fibre plants, indigo, oilseeds and fruit. Entomology will include general investigations of crop pests and especially of pests of rice, sugarcane, and cotton, fruit trees and stored grain while in pathological entomology a closer connection with veterinary work will be aimed at. Under the head of agriculture the following are the lines of work in progress—Economics of cultivation by steam and motor.

engines, paddy of rice land by double engine system of steam cultivation combination of irrigation and drainage in the growing of rice study of inheritance of the more important characters of dairy cattle by crossing building up of milk pedigree in cattle by selection.

The Indian Research Fund.—Scientific research work is rapidly developing in India in 1911 the sum of 5 lakhs (£88 000) out of the surplus opium revenue was set aside as an endowment for research into epidemic diseases in connection with the Central Research Institute at Kasauli. It was hoped that this sum might be largely augmented by private subscriptions. An Indian Research Fund Association was constituted and a good deal of work has already been undertaken. Its objects are defined as the prosecution and assistance of research the propagation of knowledge and experimental measures generally in connection with the causation mode of spread and prevention of communicable diseases. Fresh investigations into kala azar and cholera have been inaugurated, and an officer was deputed at the expense of the Fund to study yellow fever in the regions where it is endemic with a view to taking steps to prevent its introduction into India. A further grant of 6 lakhs (£40 000) was made to the Central Research Fund from the opium surplus of 1911-12. It has been decided to devote to research and anti-malarial projects 5 lakhs (£33 000) a year from Imperial revenues commencing in 1913-14. A new periodical,

The "Indian Journal of Medical Research" was instituted in 1913 and is published four times annually as the official organ of the Research Fund. The journal deals with every branch of research directly or indirectly connected with medical and sanitary science and forms a record of what is being done in India for the advance of this work.

Survey of India.—The work of the Survey of India Department falls under various heads, namely the trigonometrical survey topographical and forest surveys special surveys and explorations and map production. Cadastral surveys are now carried out by the Provincial Land Records and Settlement Departments.

In 1904 attention was drawn to the defective state of the **topographical survey maps** and a Committee was appointed to report on the subject. To overtake the arrears of revisional survey and to secure that the map of India should be brought up to date and revised at proper intervals they recommended a considerable increase of establishment and an increased expenditure of £210 000 a year for the next 25 years. They also made recommendations for **improving the quality of the maps**. After further inquiry the Government of India decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches to the mile and the 4 inch scale employed for waste and barren tracts.

NATIVE PASSENGER SHIPS

The following Resolution by the Government of India was issued in October 1913 as a result of inquiries set on foot after the loss of the *Titanic*—

"The Board of Trade made a comprehensive revision of the scale of boats and life-saving appliances to be provided on board ships in the United Kingdom and appointed committees of experts to deal with collateral questions arising in the same connection. Meanwhile the maritime local Governments have been consulted as to the necessity for revising the rules which govern vessels in British India, particularly those under the *Native Passenger Ships Act, 1887*, the *Pilgrim Ships Act 1895* and the *Indian Emigration Act 1908* which are read in the notification detailed above. The replies show that while a revision is undoubtedly necessary there is a great divergence of opinion as to the extent to which it is required and the lines on which it should proceed. The subject is one of considerable difficulty and complexity involving a number of technical and other questions which need careful scrutiny. The Government of India therefore decided to appoint a committee representative of official and non-official interests to enquire generally into the sufficiency of the existing rules and report its views to the Government. The committee consisted of the following President and members—President Mr. C. G. Toddhunter I.C.S. Collector Madras Presidency Members—the Hon. ble Sir Paulbhoy Currimbhoy Ebrahim, Bombay, Commander C. J. C.

Kendall D.S.O. R.N. Port Officer Calcutta, Mr. W. H. Ogston partner in Messrs. Killick, Nixon & Co. Bombay Captain P. Deet Groulx Marine Department, British India Steam Navigation Company Calcutta.

The Committee met at Bombay and subsequently visited other ports. It was to submit its report to the Government of India on the 1st March 1914, but the report has not been published.

Difficulties of the Question.—The appointment of the committee was welcomed by the Press, though some criticisms were directed against the apparent narrowness of the scope of the inquiry. The whole subject is one of considerable difficulty and complexity. It is well known that the standards laid down under the enactments now in force are not adequate to provide accommodation for all on board. It would be invidious to specify any one vessel to illustrate the inadequacy of the present standards, but it may roughly be said that, on the assumption that the cubic capacity which should be provided in life boats should be at the rate of ten cubic feet per adult, the accommodation now provided will only afford room for 20 to 50 per cent. of the number of passengers carried. The question is further complicated by reason of the fact that of a number of native passenger ships many are never out of sight of land during their voyages and that any insistence on the principle that there should be life-boat accommodation for all on board will necessarily result in the curtailment of the

carrying capacity. It is doubtful therefore whether, in the case of passenger ships which are engaged in the carriage of passengers between ports separated by inconsiderable distances, some relaxation should not be allowed in the matter of providing life-boat accommodation for all on board. The matter is thus essentially one for local investigation.

Working of the Act.—Under the Native Passenger Ships Act (X of 1887) the term "Native Passenger Ships" is applied to sailing-ships which carry as passengers more than thirty natives of Asia or Africa, and to

steam-ships carrying more than fifty such natives. Local Governments have discretionary power, with the sanction of the Governor-General in Council, to alter these numbers to fifteen and thirty, respectively. A long voyage is defined in the Act as a voyage in which the ship will, in ordinary circumstances, be continuously out of port for one hundred and twenty hours or more and a short voyage as one in which the ship will not, in ordinary circumstances, be continuously out of port for one hundred and twenty hours. The space allotted to passengers, and some of her conditions, differ in a long and a short voyage.

TIDAL CONSTANTS

The approximate standard time of High Water may be found by adding to or subtracting from, the time of High Water at London Bridge, given in the calendar, the corrections given as below—

	H	M		H	M.
Gibraltar	sub	0 32	Bangoon River Entrance	"	1 35
Malta	add	1 34	Penang	sub	1 39
Karachi	sub	2 33	Singapore	"	3 25
Bombay		1 44	Hongkong		4 27
Goa		2 44	Shanghai	"	0 34
Port de Galle	add	0 12	Yokohama	add	3 6
Madras	sub	5 6	Valparaiso	sub	4 40
Calcutta	sub	0 19	Buenos Ayres	add	4 0
Bangoon Town	add	2 41	Monte Video	"	0 32

Wild Animals and Snakes.

In the 25 years ending in 1911 the number of human beings reported to have been killed in British India by wild animals was 67,889 and by snakes 543,904 making together a total of 611,833 but the figures are far from accurate. Up to the year 1900 deaths from mad dogs and jackals were included in the returns, but as these animals are not ordinarily dangerous to human beings or cattle the figures have been omitted since 1901. The annual average number of persons killed during successive quinquennia since 1876 is as follows:—

	By wild animals	By snakes
Five years ending 1880	3,090	17,214
" " " 1885	2,752	19,605
" " " 1890	2,581	21,267
" " " 1895	2,925	21,054
" " " 1900	3,456	22,175
" " " 1905	2,461	22,296
" " " 1910	2,210	21,571

During the year 1914 1,745 persons were killed by wild animals in British India. This figure is about 8.9 per cent higher than the casualties in 1913 but it is lower than in 1910-12. The largest death-roll as in 1913 was returned by Bihar and Orissa which was responsible for nearly one third of the total for all India. The figures for other provinces generally exhibit increases but in the United Provinces the number of casualties dropped to 122 from 137 in 1913, while there were trivial decreases in the Bombay Presidency and in the North-West Frontier Province. Coorg and Ajmer Merwara which returned blank statements in the previous year, record 1 and 3 deaths respectively in 1914.

The largest number of deaths of human beings was as usual, caused by tigers, which were responsible for the loss of 646 lives as compared with 641 in 1913. Increases under this head occurred in Bihar and Orissa, the Central Provinces and Berar and Assam, the first-named province with 229 deaths against 251 in the preceding year showing the highest figure. The depredations of a man-eater in the Ranchi district were responsible for a large proportion of the fatalities. All other provinces except Bombay, which reports 3 deaths as in the last year, show a decline the most marked being in the United Provinces, where the number has fallen to 9 from 40 in 1913. Tigers claimed 156 victims in Madras 30 in Bengal and 30

in Burma. Of other animals leopards were responsible for 281 deaths against 256 in 1913. There was a slight decrease in the number of human beings killed by bears, wolves and elephants the figures under these heads being 95 137 and 57 against 105 152 and 62, respectively in 1913. To hyenas were attributed 27 deaths or 15 more than in the preceding year. The number of deaths recorded under the unclassified head 'other animals' rose from 395 in 1912 to 502 in 1914.

The loss of human lives due to snake-bite amounted to 22,894, the corresponding figure in 1913 being 21,770. The returns under this head show a general increase in nearly all the provinces and again in 1913, Bihar and Orissa with 5,958 deaths the United Provinces with 5,513 and Bengal with 4,326 suffered most heavily. Of these three provinces Bengal shows a slight decrease while in the other two provinces there was an increase compared with the preceding year. Decreases are noticed in Madras and Assam and no death is reported from Coorg, but the mortality of 1,169 in the Punjab is the highest for that province recorded in recent years. In the last named province vipers were the greatest source of danger and special measures to exterminate them have been organised. The use made of Sir Lander Brunton's lancets does not yet afford any useful data on which definite conclusions can be formed as to the efficacy of this method of treatment.

The number of cattle reported to have been killed by wild animals totals 94,746 and is slightly in excess of the figure for the preceding year. Assam with 17,739 deaths, an increase of 1,007 over the last year's total heads the list of casualties, while Bihar and Orissa with 16,105 comes next. In the former province the increase is believed to be chiefly due to better registration. Leopards were as usual, responsible for the largest number of kills and claimed over 50 per cent of the total mortality. Of other animals which figure largely in the destruction of cattle tigers accounted for 30,418 deaths and wolves for 10,115. Ten thousand nine hundred and thirty nine head of cattle succumbed to snake bite during the year under review as compared with 10,542 in the preceding year.

During the year 1914 25,003 wild animals were destroyed. In 1913, the number reported was 24,680. The figures for 1914 included 1,481 tigers, 6,557 leopards, 3,076 bears and 3,066 wolves. The total amount paid in rewards for the destruction of wild animals was Rs 1,91,181 which exceeded the sum so disbursed in 1913 by Rs 874. There was a considerable increase in the number of snakes destroyed the figures for 1914 and 1913 being 218,515 and 99,128 respectively. This difference was mainly due to the increase of nearly 23,100 over the last year's total in Burma, where floods are believed to have contributed to increased extermination.

India and the War.

HOSTILE FIRMS

It was early realised in India that the adoption for all purposes, of the classical definition of an enemy would not be sufficient to meet all the political difficulties involved, and on 14th November 1914, with the approval of the Secretary of State the Hostile Foreigners (Trading) Order was issued. The salient feature of this order was the definition of a hostile foreigner as a subject of any one of the enemy states with out reference to the question of residence. It further gave an absolutely free hand to Government in doubtful cases by defining a hostile firm, as a firm of which a hostile foreigner had been a member or officer on August 3rd, 1914. All such firms or foreigners were forbidden to trade except under a license. The right to refuse such a license or to impose any conditions whatever rested solely in the Government of India. In the event of a license being refused the business assets had to be deposited with Government for disposal at their absolute discretion. It will be seen that the immense scope of the definition of a hostile firm brought within the purview of the order numerous British and neutral firms who happened to have German shareholders, or perhaps a German subject as branch manager. To meet some of these cases a general exemption was issued in favour of companies who had no hostile foreigners as officers and merely had capital of amount less than one-third of the whole in enemy hands. An exemption was also made on political grounds in favour of Asiatic subjects of Turkey. In other cases where the interests involved were mainly British licenses to carry on trade were given subject of course to the provisions of the Royal Proclamations.

There remain the cases on which public attention has naturally been focused, where the interests involved are mainly or entirely hostile. It was considered desirable that these businesses should be wound up as far as possible and though the Order gave power to Government to take possession and themselves to conduct the liquidation it was considered more satisfactory to leave to these firms licenses which restricted their operations to winding up and subjected them to a strict control. The proceeds of such liquidations are being held by Government, and though their total figure has not as yet been made public, it must run into several crores of rupees.

The great majority of firms of this class are of German origin, and their principal strong holds in India have been in Bombay, Calcutta, and Rangoon. Elsewhere in India the chief feature of their enterprise has been the successful way in which they have fostered indigenous industries through the agency of Christian missionaries. The best known example is the case of the Basel Mission whose products, notably their roofing tiles are familiar throughout the west of India. Apart from these cases, where religious and commercial endeavours have gone hand in hand, the German has not balanced any very noteworthy foothold in the

motors. A few planters, a few shopkeepers in the larger towns, a hotel proprietor or two are to be found, but there is no special line that they have made peculiarly their own. These small businesses have been either wound up or placed under Government control in practically every case. The men of military age have been interned and those outside the age limits and the women and children for the most part repatriated.

The more striking features of Teutonic commercial enterprise at the three great ports are different in each case. In Rangoon at the outbreak of war there were three large rice mills whose directors shareholders and European employees were almost without exception German. The total value of these three properties has been estimated at three-quarters of a million sterling. The largest of them is believed to have been subsidised by the German Government with a view to their perpetually maintaining a large stock of rice in Germany against emergencies like the present.

One of these rice mills has been leased to a British firm and all payments are made by the latter to Government account. The other two firms have been made to wind up their affairs, their resulting balance also being deposited in the Government Treasury. One or two less important Teutonic firms engaged in rice milling and a number of small miscellaneous concerns and branches of hostile firms in other parts of India have also been treated in the same way.

The salient feature of the German enterprise in Calcutta has been the hide-export traffic. In this business a ring of some half dozen German firms has of late years established a practical monopoly. As they formed the main channel for the export of an important indigenous product, and as British firms have not proved anxious to undertake this exceedingly un-savoury trade these firms have been allowed to continue their business under British or neutral management with a strict supervision by the officer appointed by Government to control hostile firms in Bengal. Other German concerns in Calcutta have been or are being wound up. They are mostly small miscellaneous businesses with two exceptions. One is a large import and export firm which has figured prominently in the manganese trade in the Central Provinces and elsewhere. The other is a branch of a German Bank, the only German Banking concern in India. It is in the hands of the Official Assignee.

In Bombay the hostile firms whose have aroused most interest have been those engaged in the synthetic colour trade which in the last three decades has almost annihilated the indigenous indigo industry. Prior to the war dyes valued at about one million sterling were annually imported into India, and almost the whole of this quantity came from Germany and was shipped to the five German colour agencies in Bombay. Notwithstanding the

large stocks in India at the beginning of August 1914 the stoppage of this supply has been one of the most serious and most widely felt commercial blows that India has suffered as a result of the war. The textile mills have suffered heavily but much more serious has been the case of the handloom weavers in small villages all over India. Had Government been far-sighted enough to have assumed control of these stocks immediately war broke out it is very doubtful if they could have done much to assist the petty weavers and dyers whose complete lack of organisation renders help on a large scale well nigh impossible. As a matter of fact not only were Government unprepared but the commercial community themselves did not recognise the gravity of the situation until the mischief was done. By the month of November when Government assumed control of these firms they had practically disposed of their whole stock, much of which had gone into the hands of speculators with the result that prices had increased enormously. In a fourth the stock was the property of a neutral and the fifth alone had a considerable balance. Part of this was distributed among the textile mills and a further quantity sold retail to the smaller consumers. This latter policy did not prove very successful and on the arrival in Bombay of a captured German steamship with a considerable quantity of dyes which had been condemned as Prize of War and were to be sold accordingly it was decided to auction the balance (about one-sixth of the original stock), after reserving a further supply for distribution to the textile industry. Prices at this auction though considerably exaggerated in the Press of the day were none the less very high and the profits made over the sale of this firm's stock as a whole must have been considerable. These funds are of course all held by Government at present and one of the difficult problems which Government will have to solve when the terms of peace are under consideration will be the disposal of these profits. In addition to these dye firms there were in Bombay several considerable import merchants and a number of smaller concerns of a hostile nature to whom also the closure has been applied.

The policy adopted by Government in the matter of hostile firms has come in for a good deal of criticism, largely by it said, from misinformed quarters. The view of the average patriotic Briton is to wind them up completely but many critics who have voiced this cry have overlooked the fact that to wind up a concern necessitates not only the payment of all its liabilities and the sale of all its stock, but also the collection of all its debts. The men in the street would no doubt like to see Germany after the war with neither debts nor liabilities in India. But his brother in the next street whose business has suffered from the effects of

the war naturally resents being forced to pay his debts to a German firm, even though the firm's moneys are held by Government. In this matter Government has adopted a middle course. Hostile firms in liquidation have been allowed to collect their debts, but coercion has only been allowed where there were corresponding liabilities to be met and a number of firms have been closed down after allowing them a reasonable period, with a proportion of their outstandings left under what is in effect a moratorium till the end of the war. The question of the ultimate disposal of the balances realised is naturally one which cannot be decided during hostilities. Measures that have been at the disposal of Government for temporary use. Their total amount has not at the time of writing been made public but there is no doubt that the 47 crore loan floated during August 1911, might, but for these balances have led to be much larger.

In considering the total volume of trade handled by hostile foreigners one is struck by the fact that it represented before the war only a comparatively small proportion of the total trade between India and Germany and Austria. The dye business was done almost entirely through Germans but apart from this particular line the bulk of imports from and exports to Germany and Austria passed through British or neutral firms in India. The ultra-patriotic cries out for a complete boycott of goods from these countries after the war. This policy will hardly appeal to thinking men. It is almost on a par with the brilliant suggestion put forward in a reputable Anglo-Indian newspaper that it should be made an offence to be in possession of German-made goods. Any such goods found were to be sold immediately on the conviction of the owner. No suggestions were made as to the treatment of the purchaser. No the victorious allies will not serve any good purpose by attempting to annihilate the productive power of Germany and Austria. The Teutonic Empires once the cancerous growth which has vitiated their whole being has been cauterised, will still constitute a body eminently useful for the economic service of the world at large. But this body must be confined within limits and the moral to which a reconsideration of this question of hostile trade in India points is that the Teutonic body can be made a thoroughly useful servant, even though its activities are confined to its own territories. In other words India can do just as big a trade with Germany as before without a single German being allowed to reside in India. In every branch of trade with Germany and Austria except the dye business the bulk of the produce is handled by British and neutral concerns. When the war is at an end trade must be resumed with the enemy Powers, but there is no reason why any German or Austrian should ever again reside in this country for his profit.

THE WHEAT SCHEME.

The circumstances which led the Government of India to undertake the control and marketing of the Indian wheat exports were peculiar. There was a very large wheat crop in India in the season 1914-15 and the surplus available for export was estimated at two million tons.

In ordinary circumstances, therefore India might have looked forward to a brisk season with the internal prices at reasonable rates. But the economic disturbances set up by the war and the operations of speculators produced a complete bouleversement. The supply of wheat

wheat in India was cornered and the prices forced up to famine level. At the same time there were large operations in the new crop. The great wheat-eating provinces in India are the Punjab and the United Provinces. In parts of the Punjab wheat was forced up to six seers a rupee which is a rate which inflicts severe distress on the consuming class and the position was such that action was imperative. There had been widespread agrarian trouble in the Western Punjab, which whilst inflamed by rumours of the war nevertheless was largely assuaged by the high prices, and experienced officers were convinced that if the progressive rise in values was not checked there would be extensive rioting and looting of grain shops in the Punjab and the North-West generally. Government were pressed to take two courses—to prohibit the export of wheat until prices came down to the level of nine seers per rupee and on the other hand to let the market take its course, on the supposition that the high prices realised by the growers would compensate the consumers for the famine prices which they had to pay for their food. The unofficial view of the question will be found reflected in an interesting debate in the Imperial Legislative Council (see *Work of the Legislative Councils*). As a preliminary step the export of wheat from December to March was limited to 100,000 tons (92,000 tons only were shipped) and in March all exports on private account were prohibited for a year. These were temporary measures. Government took a quite different and even more heroic course—they took the whole of the export trade under their own control.

The Official Policy.—The official policy was outlined in the statement of the Member for Commerce during the debate to which reference has been made. It was afterwards published in an official communique which set out the following facts. The latest forecast of the crop which is now being harvested in India shows an area of 32,148,000 acres under wheat and an estimated yield of 10,228,000 tons which is in excess of the previous record of 10,061,000 harvested in 1911, and compares with 17,697,000 acres and 8,487,000 tons last year. If this forecast is approximately fulfilled, there should be an exportable surplus from the present crop of at least 2,000,000 tons in excess of the normal Indian consumption. To prevent this surplus from finding a market would, on the one hand, have deprived India of a very valuable export in a year in which some of her other staple exports have been unfavourably affected, and have deprived her wheat cultivators of their legitimate expectations of profit, with the result of influencing adversely the area to be sown for wheat in future years, and on the other hand, it would have deprived the United Kingdom of a source of supply on which, in the present circumstances she is largely dependent.

The problem which presented itself therefore was to place it within the power of the Government of India to affect a divorce between the Indian and the world-price of wheat (whenever the conditions of the wheat markets in India and elsewhere may render this advisable), without hindering the shipment to the United Kingdom of India's exportable surplus in such quantities and at such seasons of the year as might

have been anticipated in the absence of regulation.

The policy which has been adopted to this end is as simple as the conditions of the problem permit. The Government of India have prohibited absolutely the export of wheat from India on private account for the whole period up to March 31 1916. The firms ordinarily engaged in the export of wheat from India to whose willing co-operation and advice the Government are much indebted have been appointed the agents of Government for the purpose of carrying on the trade under the orders and for the account of the Government of India. The maximum price to be offered by these firms to Indian sellers instead of being regulated by the price ruling in London, will be determined from time to time by the Government of India and announced on their authority and as the season progresses these maxima will be gradually reduced so that there can be no inducement to speculate for a rise or to withhold supplies. The maximum price will be the maximum at the port and firms must only offer up-country such prices as with the addition of the railway charges, will not exceed this maximum. The necessary variations from the standard maximum will be fixed for the various recognized qualities of Indian wheat.

The working of the scheme in India will be supervised, subject to the orders of the Government of India by Mr. M. M. S. Gubbay Indian Civil Service. Supervision in London has been entrusted to the Indian Wheat Committee which is constituted as follows—Lord Lucas (Chairman), Mr. R. H. Rew (Board of Agriculture and Fisheries), Mr. F. C. Drake (India Office), Mr. J. M. Keynes (Treasury), Mr. A. S. Gayer (Board of Agriculture and Fisheries), Mr. E. G. Saltmarsh (The Bank), the Secretary being Mr. H. D. Vigor, 3, St. James's square.

For the chartering of freight the Indian Wheat Committee have secured the services as broker of Mr. Percy Glanville of the firm of Messrs. Nelson Donkin and Co. who has set up a separate office at Exchange Chambers, St. Mary Axe, E.C. for the transaction of this business, and will devote the whole of his time to it. The firms which bought the wheat in India will sell it in the United Kingdom at market rates, on the London Corn Trade Association Contract or other customary official contracts. The normal trade channels for marketing wheat in this country will be regularly employed, and the wheat will not be sold at an artificial price. A Committee representative of the agent firms has been set up in London for consultation day by day regarding the sale of the wheat.

Any profit, after payment of all charges, arising out of the difference between the sale of the wheat at its natural price in London and its purchase at the officially regulated price in India will form part of the revenues of the Government of India.

Scheme Approved.—Whilst there was naturally some criticism of details the scheme as a whole was almost universally approved. The chief criticism was directed to the employment of the existing wheat exporting firms as the agents of Government. It being suggested that the Supply and Transport Department would be the best agency, and it was also sug-

proved that a sliding scale of export duties would be the most efficacious measure. On one point only however was there any real controversy. The Government of India had laid down that they would interfere as little as possible with the existing channels of trade. This was one of the reasons, amongst others, which induced them to place the practical details of the working in the hands of the recognised exporting firms. In ordinary years exports of this character are financed through the Exchange Banks which had laid down funds in India for the purpose. It was urged that the finance of the exports should be done through the Exchange Banks. Acting it is understood on the advice of the Treasury, the Home Government decided to finance the exports through direct Government agency. The reasons for this course were laid down in a communique which said—

On this matter discussion has been necessary between the Secretary of State for India, the Government of India, and the Treasury, who (as guarantors of the Indian revenues against net loss) are interested in the financial arrangements. Various schemes were put forward with the object of securing that the drawing and negotiation of bills of exchange which take place in normal years, when the wheat trade between India and the United Kingdom is conducted on private account should not be interrupted or diminished.

If the object of these schemes could have been attained without cost to the taxpayer, there would have been no hesitation about adopting one or other of them and thereby avoiding interference with the usual course of financial business. But examination showed that any scheme would have involved expenditure (of which the ultimate incidence would have been on public revenues) for interest and other charges incidental to the making and negotiation of bills of exchange while it was not necessary to have recourse to outside funds since it is estimated that the balances of the Government of India and the Secretary of State for India will suffice to provide for the outlay on the purchase of wheat.

The Secretary of State has therefore decided that the Government of India shall place funds from their own resources at the disposal of the agent firms. This arrangement has the advantage of simplicity since transactions between England and India in connexion with purchases to be made and paid for in India will be avoided.

Special arrangements will be made in respect of any sums provided by the agent firms for the purchase of wheat on Government account before the publication of the above decision. The firms will have the option of taking repayment either in India or (at the rate of 1s. 4d. the rupee) in England. In the latter case payment will be made at the date on which a demand bill would reach England.

This decision was very hotly criticised. It was argued that it was no real economy, also that it was responsible for a break in exchange and a large demand for sterling bills on London, or Reverse Councils as they are now called. Further, it temporarily destroyed the means of livelihood of certain brokers who depend on this business, but inasmuch as the British

Treasury had guaranteed the Government of India against loss whilst agreeing that India should take any profit, the decision of the Treasury was final.

A Successful Policy.—No official pronouncement embracing the working of the scheme as a whole has been made. Consequently we are thrown back on general reasons in attempting to decide how far it has succeeded. So far as these go, they indicate that the scheme was a complete and triumphant success. It attained its primary purpose the steadying of prices in India. From the moment when Government prohibited exports the upward trend which had been continuous was arrested and a progressive decline was noticed. At the same time it achieved its complementary purpose—to place the undoubted Indian surplus at the disposal of the population of the United Kingdom. It is understood that approximately six hundred thousand tons of Indian wheat were shipped to England.

Whilst accomplishing these ends the scheme secured a good profit for the cultivator, which is estimated at twenty five per cent. above normal. The Government price never worked out at less than three rupees eight annas per maund at Lyalpur, the great wheat market in the Punjab and in normal times the cultivator is satisfied if he sells his crop at three rupees. The average price paid by Government was four rupees fourteen annas and they paid as much as five rupees twelve annas.

With the single exception of the disturbance to exchange the working of the scheme in India was smooth and uneventful. It is believed however that the anticipation of a large profit on the transaction—ambitious people saw a profit of a million or two in it—were not realised. The highest price paid by Government was five rupees twelve annas a maund F O B. The lowest four rupees ten annas nine pice. The first consignments were sold in London at the handsome price of sixty-seven shillings a quarter. But the Home Wheat Committee held on too long and when the unexpected break in prices occurred they saw their prospective profits disappear. Then Government carried their own insurance, two of the wheat ships were sunk, one by a submarine, whilst another was wrecked when approaching the Mersey. The net profit on the transaction to date—December 1915—is estimated at £130,000.

The erratic character of the monsoon of 1915, especially in the north west of India, which is the great wheat-growing tract caused a hardening of prices, which touched a value at which it did not pay Government to buy and ship. The Government organisation has however been maintained and will be maintained after April 1916 so that there will be no incentive to speculative manipulation of prices on the expectation of a foreign demand at abnormal rates. The Government rate still in force (December 1915) is four rupees, ten annas nine pice, though it is understood that no transactions are being put through at that rate. Where then wheat has not come forward at the Government price the price has not been raised by the foreign demand. It cannot therefore be urged that

the Indian internal price has been forced up by the demand to meet the needs of the United Kingdom. Any raising of prices that has occurred is due to internal causes. It may seem elementary economics to elaborate this

obvious point but the causes leading to a rise of prices in India are so little understood and are so frequently ascribed to a drain on the food store of the country that it has been thought desirable to make it quite clear.

The export of wheat from British India by sea to foreign countries during each month of the last four official years and during the months of April to October 1915 are stated below —

Month	1911-12	1912-13	1913-14	1914-15	1915-16
	Tons	Tons	Tons	Tons	Tons
April	67 900	68,900	27 300	9 100	10 650
May	135 700	107 000	166 300	24,000	(a) 104 980
June	169 600	243,500	260 400	169 000	(a) 291 900
July	266,200	323 000	318,500	169 800	(a) 187,570
August	120,200	133,200	184 700	42 500	(a) 47 860
September	66,800	231,500	134,800	36 100	(a) 5 760
October	65,700	148,500	52 700	88 300	780
November	74,100	114 300	40 700	50 000	
December	97 300	79 600	21 700	37 000	
January	101,800	99 100	20 700	2,000	
February	75 200	51 500	9 700	21 600	
March	96 700	33 100	8 700	8 800	
TOTAL	1 361,200	1 660,200	1,202 900	706 400	

(a) Include exports on Government account namely 94,957 tons in May and 249 952 tons in June 150,295 tons in July 36 488 in August and 2,375 tons in September 1915

WAR AND TRADE

In the section Indian Trade (see pp 238-247) the effect of the war on the trade of India is fully analysed. The official year in India however runs from April 1st to March 31st and this review does not carry us beyond the 31st of March 1915. The latest official returns dealing with Indian trade carry us down to October 18th, and they are summarised here. They show the degree to which this trade has recovered from the shock of war.

During the seven months ended October 1915 as compared with the corresponding period of 1914, the value of imports declined by Rs 10 48 crores to Rs 78 97 crores while the total exports including re-exports and the value of wheat exported on Government account increased by Rs 69 lakhs to Rs 112 3 crores. The exports of Indian merchandise showed an increase of Rs. 68 lakhs or 5 per cent and re-exports of Rs 3 lakhs. The grand total

of imports exports and re-exports amounted to Rs 189 27 crores as against Rs 199 17 crores.

Imports of treasure declined by Rs 6 crores to Rs 8 crores. Gold bullion fell by Rs 3 crores to Rs 3 crores and sovereigns by Rs 1 39 crores to Rs 43 lakhs of which Rs 34 lakhs were on account of Government. Silver bullion decreased by Rs 1 65 crores to Rs 4 1/2 crores. Exports of treasure also declined by Rs 1 90 crores to Rs 82 lakhs.

The tonnage of vessels entered at ports in British India from Foreign countries and British Possessions with cargoes during the seven months April to October 1915 amounted to 3,532,077 tons, and the tonnage cleared to 3,312 411 tons as against 3,246 151 tons entered and 3 723 803 tons cleared during the corresponding period of 1914.

Summary Table showing the Value of Imports and of Exports of Foreign Merchandise of Exports of Indian Merchandise and of Total Exports for each month in the two previous years and for the completed months of the current year —

	IMPORTS			EXPORTS FOREIGN MERCHANDISE			
	1913 14	1914 15	1915 16	1913 14	1914 15	1915 16	
	Rs	Rs	Rs	Rs	Rs	Rs	
April	1,04,15,524	14,49,63,709	9,27,00,580	42,13,01,2	30,23,081	22,72,423	
May	14,30,63,901	11,58,90,906	9,42,42,774	46,28,617	30,00,001	31,70,064	
June	12,22,43,850	12,68,19,583	10,39,82,019	30,35,105	40,42,424	42,86,122	
July	14,47,61,327	14,60,30,230	11,11,15,331	7,11,874	14,14,804	44,81,546	
August	10,13,04,239	12,92,02,707	12,50,57,411	30,48,556	23,04,765	42,96,390	
September	10,61,18,547	7,39,50,111	12,83,85,558	32,24,402	40,28,885	30,09,776	
October	18,5,65,532	1,30,20,540	11,51,31,530	31,90,711	18,35,107	41,21,801	
	EXPORTS FOREIGN MERCHANDISE			TOTAL EXPORTS			
April	21,03,17,654	20,41,12,299	12,27,04,088	21,40,31,576	20,80,35,387	12,49,77,131	
May	10,20,48,020	21,04,41,730	15,30,75,907(a)	19,67,76,616	21,39,41,731	15,71,45,911(a)	
June	17,53,33,308	11,42,35,303	17,77,49,128(b)	17,89,28,633	21,89,27,777	18,16,38,250(b)	
July	20,2,74,638	19,12,46,104	14,64,13,002(c)	20,63,48,513	10,56,80,985	15,09,04,638(c)	
August	17,24,09,072	9,55,14,247	14,80,10,722(d)	17,59,47,588	9,78,19,092	15,23,06,112(d)	
September	19,47,77,977	7,50,53,060	16,96,67,915(e)	19,80,62,379	7,98,81,945	17,32,77,021(e)	
October	21,68,38,22	9,99,07,473	17,87,09,057	22,09,29,244	20,36,02,580	13,28,20,068	

(a) Includes Rs 1,20,50,910 being the value of wheat exported on Government account
 (b) Includes Rs 1,34,15,520 being the value of wheat exported on Government account
 (c) Includes Rs 1,87,62,689 being the value of wheat exported on Government account
 (d) Includes Rs 41,46,180 being the value of wheat exported on Government account
 (e) Includes Rs 2,94,092 being the value of wheat exported on Government account

Summary Table showing the Value of Imports and of Exports of Foreign Merchandise of Exports of India Merchandise and of Total Exports for each month in the two previous years and for the completed months of the current year —

	MERCHANDISE				Exports (Total)	TREASURY	
	Imports	Exports (Foreign)	Exports (Indian)			Imports	Exports
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
(I) October 1915	11,61 03 265	41 11 901	17 87,00,057	18,28 20 958	68 82,849	10,84,759	
" 1914	12,36,20 545	26,35,107	9 99,97 473	30 36,02,580	47 24,272	2 00 408	
(II) Seven months 1st April to 31st October 1915	16 55,55,522	34,90 712	21 68,38,525	22,03,20,234	3,05,45,640	51,56,029	
Seven months 1st April to 31st October 1914	70 99,97 155	2,41 87,162	1 09 08 30,5194	1 12,20 17 681(4)	8,15 01 868	81 86 614	
Seven months, 1st April to 31st October 1915 Increase (+) or Decrease (—) in October 1915, compared with—	87 45 79 846	2,58 49 077	1 09 12 40 313	1 11 70 89,300	14,38 11,285	2,78 53,509	
(I) October 1914	1 05 38 63 023	3,50 05 282	1 36 52,59 187	1,39 08 62,469	19 32,14,736	5,35 93 746	
(II) 1915	—84,27,291	+4 76 794	+7 87 41,584	+7,92,13 978	+1 6 58,597	+7,44,201	
Decrease (—) or Increase (+) in seven months, 1st April to 31st October, 1915, compared with—	—5 03,72,267	+6 21 189	—8 81,29 465	—1 76 06 270	—2,44,02 741	—41,21,270	
(I) Seven months, 1st April to 31st October 1914	—10 48 82 601	+3 95 085	+15 90 206	+1 9 28,291	—0,18,11 416	—1,04 07 890	
(II) Seven months, 1st April to 31st October 1915	—28,41,65 897	+5 85 890	—26 84 28,068	—20 78 44 788	—11,17,12,867	—4,54 03,132	

(a) Includes Rs. 6 88 59 847 being the value of wheat exported on Government account

FINANCE.

The financial history of the year was comparatively uneventful. The official financial year closes on March 31st, and the influence of the war up to that date is set out in the section on the Finances of India (p. 170 194). Reference to those pages will show that the Government of India expected to meet all the calls upon them without adding to the weight of taxation, by supplementing the usual borrowing programme. The total amount which they had to raise, apart from the ordinary sources of revenue in order to meet their requirements was £28 4 millions. Of this they estimated to receive £4 5 millions from the balances, £3 millions by rupee borrowing, £6 5 millions from sterling borrowing, £4 millions from the famine insurance fund and miscellaneous items, and £14 millions by the renewal of temporary debt. The rupee loan was a success. The rate of interest was raised from three and a half per cent. the rate of all recent rupee loans to four per cent. and the loan was terminable in 1923. It is understood that the whole amount was underwritten by the Presidency Banks. The actual amount to be raised in rupees was 5 crores and the total subscription were six and a half crores. There is no reason to doubt that a still larger sum could have been raised if the Government of India had been given a free hand. In addition to this sum special facilities were offered for investment in this new four per cent loan through the Post Offices and this produced a further Rs. 44 lakhs. The renewal of the temporary debt was also easily accomplished. In India no obstacle presented itself the money was borrowed from the Gold Standard Reserve (q.v.) which would otherwise have remained inert. In England the India Treasury Bills were renewed. But with regard to the sterling borrowing although no official announcement has been made it is understood that it fell short of the official estimate by £5 millions, and that the Government had to go short by this sum.

At the same time it is scarcely open to doubt that the Budget for 1915-16 was framed on the assumption that the war would be over before the financial year expired. If the Government of India erred in this respect it erred in good company. If when the budget had been framed it had been realised that the close of the year 1915 would find us no nearer the end of the war than the beginning, a much more cautious tone would have been preserved and much more rigid economy exercised. As however it became evident that the end of the war was not in sight, the screw exercised by the Finance Department was tightened, rigid economy was enforced on all sides save the military and Provincial Governments were bidden to place a rigid embargo on every form of expenditure that could be arrested. As the year closes the outlook is obscure. There is good ground for believing that a deficit in the budget is inevitable. Some heads of revenue have done remarkably well. The gross receipts from rail ways, for instance, are more than a crore of rupees above the estimate. The land revenue is also coming in well but the Customs receipts show a serious deficiency. The Government balances in December were a crore of rupees

below the corresponding figure of the previous year. This is the season of the year when they are at their lowest. Some financial critics think that special war taxation and a loan in India are inevitable. Others think that by cutting capital works out of the budget entirely the year can be passed without either. The financial history of January February and March will determine the issue. There is no sign that a special war tax, if it takes a form suited to Indian conditions, that is to say if it is an indirect tax and imposed only for the duration of the war, will be unpopular.

Currency and Exchange.—In currency Indian finance pursued a normal course. Rupees and notes continued to circulate side by side with perfect freedom. Gold disappeared from circulation and the sovereign remained at a premium which varied from two to six annas. The exchange problem is normally bound up with the remittances of the Government to meet the Home Charges. Owing however to the large expenditure incurred by the Government of India in India on account of the Imperial Government the total amount to be remitted was only £7 100 000. Of this, there was remitted from April 1st to December 4th by Council Bills £ 6 718,026 (of this sum £1 950 000 was taken to the account of the Gold Standard Reserve) leaving to be remitted from December 8th to March 31st £ 381 974. That is to say with the three busiest months of the trade year before him the Secretary of State has practically satisfied his requirements. The weakness in exchange such as it was arose from the demand for sterling bills or Revenue Councils rather than from ordinary Councils. Owing to the decision of the Treasury to finance the Government purchases of wheat (q.v.) through Government agency instead of through the Exchange Banks, the banks that had laid down funds in India for the purpose had to transmit them to London. This induced a temporary weakness in exchange though doubtless other factors intervened. Sterling bills were steadily sold to meet the demand and this demand ceased before the closing months of the year were entered. In all other respects the currency and exchange history of the current year was uneventful.

Relief Funds.

On the initiative of His Excellency the Viceroy a large sum of money was raised in India in 1914-15 for the relief of distress caused by the war. A Central Committee was formed, over which the Viceroy presided and which included the Governor of Bengal, the Governor of Madras, the Governor of Bombay and the Commander-in-Chief. The members of H. H. the Viceroy Executive Council the heads of other Local Governments and Administrations and the following Ruling Chiefs—Their Highnesses the Maharaja of Bikaner, the Begum of Bhopal, the Maharaja of Gwalior, the Nizam of Hyderabad, the Maharaja of Indore, the Maharaja of Jaipur, the Maharaja Regent of Jodhpur, the Maharaja of Kashmir, the Maharaja of Kota, the Maharaja of Mysore, the Maharaja of Patiala, the Maharaja of Rewa, and the Maharaja of Udaipur.

Under its control an executive committee was formed and local branches were constituted. The treasurer of the Fund was at first the late Mr A. Kerr who was succeeded by Mr Henry (General Manager of the Alliance Bank of India) and the Joint Secretaries are Mr F W Johnston and Major John Mackenzie.

Among the provincial offshoots of this fund is the **Women's Branch** of the Bombay Presidency Fund, which was started by Lady Willington with the object of collecting comforts for the troops and of making up quantities of suitable garments.

The position of the Fund at the end of August 1915 was as follows:—

Suma subscribed in the various provinces and Native State Agencies —	Rs.
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Bombay—

Subscribed direct to the Imperial Indian Relief Fund	8,32,538
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Subscribed to the Bombay Provincial Branch	37,77,314
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Subscribed to the Women's Branch	3,87,576
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Madras—

Subscribed direct to the Imperial Indian Relief Fund	9,18,244
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Subscribed to the Madras War Fund	29,15,140
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United Provinces

	16,21,265
--	-----------

Bengal

	13,35,963
--	-----------

Bihar and Orissa

	12,70,830
--	-----------

Punjab

	12,54,090
--	-----------

Central Provinces

	11,48,711
--	-----------

Central India Agency

	9,96,418
--	----------

Berars

	5,56,681
--	----------

Kashmir

	4,78,239
--	----------

Hyderabad

	4,28,255
--	----------

Rajputana

	4,17,745
--	----------

Mysore and Coorg

	1,71,575
--	----------

North-West Frontier Province

	1,84,016
--	----------

Assam

	1,27,688
--	----------

Ajmer Marwar

	92,286
--	--------

Baluchistan

	79,111
--	--------

Sarada

	62,441
--	--------

These figures do not include subscriptions promised but not yet paid nor do they include certain subscriptions paid direct into the Central Fund and not passed through the accounts of the Provincial Branches. There is also a separate Public Works Department Branch of the Fund, the subscriptions to which amount to about Rs 1,69,000 all of which has been credited to the Central Fund. The total amount at the credit of the Central Fund on the 31st August 1915 was Rs 80,51,480 and the amount held at the credit of Provincial Committees on the same date was Rs 29,32,229. These totals exclude the sums at the credit of the Madras War Fund and at the credit of the Bombay Provincial Branch and the Bombay Women's Branch which, though affiliated to the Central Fund, are under separate management. Out of the sums retained by Provincial or State Committees in order to enable them to relieve cases of local civil distress the total amount spent up to the end of August was about Rs 2,40,000. The unexpended balances which may ultimately remain over will be transferred eventually to the Central Fund.

The total expenditure from the Central Fund up to the 31st August, 1915 amounted to Rs 18,77,185, and to this must be added a

sum of about Rs. 2,40,400 expended by Provincial Committees in the relief of local civil distress. The balance will be devoted eventually to the third, and ultimately the most important, object of the Fund, namely the grant of assistance to the widows and orphans of those who are killed or die in service to whom must logically be added the officers and soldiers incapacitated for further service. The amount which might be expended upon this object is almost unlimited and the Committee in a recent communication to the Press state they have consequently endeavoured from the first to accumulate as large a sum as possible for expenditure at the end of the war while affording such intermediate assistance as may be necessary. Some idea of the calls which may be anticipated upon the Fund at the close of the war may be gathered from the fact that even if the war should end by March 1916, the casualties continuing at the same rate as hitherto it is estimated that of British officers of the Indian Army and of the Indian Army Reserve there will by that time have been 540 killed and 800 wounded of Indian officers 900 killed and 750 wounded and of Indian non-commissioned officers and men 9,000 killed and 25,000 wounded. It must of course be remembered that not more than 25 per cent. of the wounded in each class are likely to be so severely wounded as to be invalided out of the service. In the majority of cases the wounds will be relatively slight and the men will remain on the active list. Even allowing for this fact, however, there will probably be some 200 British officers nearly as many Indian officers and 6,000 Indian non-commissioned officers and men who are incapacitated by wounds for further service many of whom will need assistance from the Fund. With the war lasting longer, or should the ratio of casualties become still higher the number of claimants for assistance from the Fund will be much greater than at present anticipated. In addition to the classes mentioned above there are also the widows and dependents of men serving on the Departmental Unattached Lists or the Civilian European and Anglo-Indian staff belonging to the Military Accounts Postal and Telegraph Departments, and of Sub-Assistant Surgeons all of whom may need help.

All the above mentioned classes will, of course, be eligible for pensions from the State and the wound and injury pensions, as well as the family pensions admissible to all ranks of the Indian Army and their families have recently been exceptionally enlarged. Nevertheless it is impossible for any pensionary scheme however liberally framed, to meet in full the varying degrees of need which will arise and it is with the object of supplementing the efforts of Government in this direction that the Central Committee have under their consideration various schemes for the grant of assistance to all these classes at the close of the war. A rough estimate of the probable cost of these measures based upon the optimistic hypothesis that the war may come to an end in the spring of 1916 and that the number of casualties will remain fairly constant, shows that even then at least Rs. 25 lakhs will be required, if adequate relief is to be granted.

OFFERS OF SERVICE.

In the House of Commons in September 1914 a statement was made of the offers of service made by Ruling Chiefs and important persons and associations in India. That statement (see Indian Year Book, 1914 p. 817) was supplemented by Mr. Chamberlain Secretary of State for India, in October 1915. As illustrative of the spirit of loyalty animating India he said that besides the Chiefs mentioned last year the rulers of Nawanganar Rajkot Baria Jankhandi Akalkot Savanur Barwan, Loharn and Waukaner have been permitted to go on active service. In one or other of the spheres of operations. In addition to the Imperial Service troops originally selected from among those offered contingents from the following States have also been accepted for service in India or abroad. Jinnagadh, Khairpur Nawanganar, Bhavnagar Janjira, Tehri Bahawalpur Malerkotla Simlur Rhoval and Idar. Three hospital ships equipped and maintained from unofficial sources have left the shores of India—the *Loyalty* given jointly by a number of Ruling Chiefs, the *Madras* given by the Madras War Fund and the *Bengali*, given by the people of Bengal. The last was most unfortunately wrecked on its way to the Persian Gulf. The first two have been continuously employed this year in carrying sick and wounded between India and the theatres of war. The Nizam of Hyderabad has offered 60 lakhs for the expenses of one of his Imperial Service regiments which has gone to the front, and of the cavalry regiment of the Indian Army of which he is honorary colonel. The Maharaja of Mysore besides the 40 lakhs he had already given has offered the services of his State in many other practical ways. The Maharaja Sindhis of Gwalior whose health has prevented him from going to the front has made further munificent gifts in money and in kind including a motor ambulance fleet and six armoured aeroplanes. The Begum of

Bhopal, in addition to large contributions to relief funds and other services, has sent 500 korans for sick and wounded Moslem soldiers. The Gekwar of Baroda gave 5 lakhs for the purchase of aeroplanes. The Maharajas of Kashmir and Patiala and the Jam of Nawanganar besides other services are jointly maintaining a hospital for officers in a house at Staines which His Highness the Jam has given for the purpose.

The Frontier States.—The offers of service by the frontier militias the proposal of the Khyber tribes to furnish an armed contingent and the subscription by the Wazirs of Bannu of their allowances for one month to the Relief Fund are striking examples of the fact that the notabilties and tribes of the borderland have been equally generous in their offers. Beyond the border the Chiefs of Baluchistan made valuable offers of camels and the Sheikh of Kuwait and Bahrain contributed to charitable funds in India. The Maharaja of Bhutan besides offering the financial and military resources of his State contributed a lakh of rupees to the Relief Fund. The Prime Minister of Nepal added largely to the munificent gifts mentioned last year and has rendered most valuable services by the military facilities which he has accorded. The Lama Lama of Tibet as was stated last year offered one thousand soldiers at the outbreak of war. His continued sympathy with the cause of the Allies is shown by the fact that on hearing of General Dobbs's victories in North West Africa he ordered flags to be hoisted on the hill around Lhasa and special prayers to be offered for further victories. It will not perhaps be out of place in this connection to add that his Majesty's Government have received striking proofs of the friendship of the Amir of Afghanistan, and of his determined loyalty to the British alliance.

THE VICTORIA CROSS

The announcement made at the Delhi Durbar in 1911, that in future Indians would be eligible for the Victoria Cross gave satisfaction which was increased during the War by the award of that decoration to the following—

On the 31st October 1914 in an action at Heilberke, No. 4064 Sepoy Khudadad of the 125th Duke of Connaught's Own Baluchis with one of the regimental machine guns. The detachment was overwhelmed by numbers. One gun had been put out of action by a shell and the three men remaining with it were ordered to retire. The British officer in charge of the detachment was wounded. Sepoy Khudadad remained working the other gun until all the other five men of the detachment had been killed. He was wounded and has since been able to rejoin his corps.

In the action of the night of the 23rd and 24th November 1914, near Festubert, No. 1909 Naik, Narwan Singh Negi, B. Company 35th Gurkha Rifles 1st Battalion when the regiment was engaged in retaking and clearing

the enemy out of our trenches was from first to last one of the first to push round each successive trench taken by the use of severe fire from bombs and rifles at the closest range. Although wounded in two places in the head and also in the arm, he continued fighting amongst the foremost and did not even report himself wounded till he met his Company Commander after the action was over. Naik Durwan Singh Negi was summoned on the 5th December to the General Headquarters to receive his V.C. at the hands of His Imperial Majesty the King.

No. 1685 Rifleman Gobarsingh Negi, 2nd Bn. 39th Garhwal Rifles. For most conspicuous bravery on 19th March, 1915 at Neuve Chapelle during our attack on the German position he was one of a bayonet party with bombs who entered their main trench and was the first man to go round each traverse driving the enemy back until they were forced to surrender. He was killed during this engagement.

Janadar Mir Dost, I. O. M., 55th Cooke's Rifles (F.F.). For most conspicuous bravery and great ability at Ypres on 26th April, 1916 when he led his platoon with great gallantry during the attack, and afterwards collected various parties of the regiment (when no British

Officers were left) and kept them under his command until the retirement was ordered. Janadar Mir Dost subsequently on this day displayed remarkable courage in helping to carry eight British and Indian Officers into safety whilst exposed to heavy fire.

PASSPORT REGULATIONS.

The following regulations concerning passports were issued in 1916—

1. Applications for Indian Passports must be made in the prescribed form, and submitted either direct or through the local authority—(a) in the case of a resident in British India to the Local Government or Local Administration concerned. (b) in the case of a resident in a Native State to the Agent to the Governor General or Political Resident concerned.

2. The charge for an Indian Passport is Re 1.

3. Indian Passports are granted to—(a) Natural-born British subjects (b) wives and widows of such persons (c) Persons naturalised in the United Kingdom, in the British Colonies or in India, and (d) Subjects of Native States in India. A married woman is deemed to be a subject of the State of which her husband is for the time being a subject.

4. Passports are granted upon the production of a declaration by the applicant in the prescribed form of application verified by a declaration made by a *Public Officer Magistrate Justice of the Peace, Police Officer not below the rank of Superintendent or Notary Public*, resident in India.

5. If the applicant for a Passport be a Naturalised British subject, the certificate of naturalisation must be forwarded with the form of application to the Officer empowered to grant the Passport. It will be returned with the Passport to the applicant through the person who may have verified the declaration. Naturalised

British subjects will be described as such, in their Passports which will be issued subject to the necessary qualifications.

6. Small duplicate unmounted photographs of the applicant (and wife if to be included) must be forwarded with the application for a Passport one of which must be certified on the back by the person verifying the declaration made in the application form.

7. Indian Passports are not available beyond two years from the date of issue. They may be renewed, in India only for four further periods of two years each after which fresh Passports must be obtained. The fee for each renewal is Re 1.

8. Passports cannot be issued or renewed on behalf of persons already abroad such persons should be told to apply for Passports to the London Foreign Office or nearest British Mission or Consulate. Passports must not be sent out of India by post.

9. In the case of an applicant for a Passport being unable to write English a transcription in English should be placed below the applicant's vernacular signature in the form of application. In the case of an illiterate person a thumb impression should be substituted for a signature on the form of application which should be certified by the person verifying the declaration.

Applicants and persons recommending them, are warned that should any of the statements contained in their respective declarations prove to be untrue they will render themselves liable to prosecution.

DISTURBANCES IN PERSIA.

In the section 'The Frontiers', an account is given of the disturbances in Persia due to German Agents, which caused grave preoccupation to the British and Russian Governments. The Foreign Office issued in November the following category of outrages—

On the 12th July a party of insurgent tribesmen advanced towards the country house of H. M. Resident and Consul General, outside Bushire. Two British officers Major Oliphant and Captain Ranking who with a party of Indian cavalry and infantry went to reconnoitre, came suddenly on a well-concealed party of the enemy who opening fire at close range, killed both the officers and one sepoy and wounded two more. The enemy then advanced to attack. Heavy firing then took place.

A simultaneous attack was also planned for the same evening in another direction, but was abandoned.

On September 1 H. M. Consul General at Isfahan, when out riding with an escort, was fired at. Mr. Graham Himeel was wounded and his Indian orderly killed.

The British Vice Consul at Shiraz, Gholamali Khan, was shot at and wounded in two places

on September 7. The Vice Consul died on September 8.

On October 23 the munshi (clerk) and a ghulam (mounted servant) of the Consulate at Shiraz were shot at and wounded. The ghulam died subsequently.

On August 25 the British and Russian Consuls at Kermanshah were returning to their posts from Hamadan and were at Kangavar. The German Consul at Kermanshah with a force consisting of perhaps 200 men and two Maximas occupied the surrounding hills, and informed the Governor that he would give three hours for the British and Russian Consuls to leave. Failing this he would attack the town. The Consuls were forced to withdraw to Hamadan, where upon the German and his forces left. The object of his attack was obviously to keep the consular representatives of the Entente Powers out of Kermanshah, the main means of entrance for German agents into Persia.

A report was afterwards received that H. M. Consul and the Manager of the Imperial Bank at Shiraz were made prisoners and carried into tribal territory. The Persian Government deplored the outrages.

TERRITORIAL TROOPS IN INDIA.

The following are the British units which arrived in India in 1914-15 in relief of the British troops who have gone to the front together with the stations to which they have been posted.—

*Western Division.**Devon and Cornwall Brigade.*

- 4th Duke of Cornwall's Light Infantry (Lt.-Col. Smith), Bareilly
- 4th Devonshire Regiment (Lt.-Col. Acland Troyte), Ferozapore
- 5th Devonshire Regiment (Lt.-Col. Hawker), Multan
- 6th Devonshire Regiment (Lt.-Col. Radcliffe), Lahore.

South-eastern Infantry Brigade.

- 4th Somerset Light Infantry (Lt.-Col. Cox) Peshawar
- 5th Somerset Light Infantry (Lt.-Col. Cooke-Hurle), Ambala.
- 4th Dorsetshire Regiment (Lt.-Col. Baxter) Ambala.
- 4th Wiltshire Regiment (Major Armstrong) Delhi.

Hampshire Infantry Brigade

- 4th Hampshire Regiment (Lt.-Col. Bowker) Poona.
- 5th Hampshire Regiment (Lt.-Col. Burford Hancock), Allahabad.
- 6th Hampshire Regiment (Lt.-Col. Playfair), Agra.
- 7th Hampshire Regiment (Lt.-Col. Parke), Meerut.

*Field Artillery of Western Division**First Western Brigade*

- Commanding Lt.-Col. Powell.
- 1st Hampshire Battery (Major Flowers), Lahore.
- 2nd Hampshire Battery (Major Cogswell), Peshawar
- 3rd Hampshire Battery (Major P. House), Lahore.

Second Western Brigade.

- 4th Hampshire Battery (Major Malcolmson), Lucknow
- 5th Hampshire Battery (Major Thompson), Lucknow

Third Western Brigade.

- Commanding Lt.-Col. Bedford Pim.
- 6th Hampshire Battery (Captain Carrill), Ambala.
- Wiltshire Battery (Major the Earl of Suffolk) Delhi
- Dorsetshire Battery (Major Livingstone Leamonth), Bareilly

Fourth Western Brigade.

- Commanding Lt.-Col. Talbot.
- 1st Devonshire Battery (Lt.-Col. Farrowse), Allahabad.
- 2nd Devonshire Battery (Major Vickers), Dinapore.

- 2nd Devonshire Battery (Major Arden), Barrackpore.

Surrey Infantry Brigade.

- 4th Royal West Surrey Regiment, Lucknow, (Lt.-Col. Outler)
- 5th Royal West Surrey Regiment, Lucknow (Lt.-Col. Brodriek)
- 5th East Surrey Regiment, Nowabera (Lt.-Col. Harvey)
- 6th East Surrey Regiment Rawalpindi, (Lt.-Col. Dryson)

Kent Infantry Brigade.

- 4th East Kent Regiment, Aden, (Lt.-Col. Gosling)
- 5th East Kent Regiment, Kampsee (Lt.-Col. Munn-Mace)
- 4th Royal West Kent Regiment, Jubbulpore (Lt.-Col. C. N. Watney).
- 5th Royal West Kent Regiment, Jhansi, (Lt.-Col. Fraser)

Middlesex Infantry Brigade

- 9th Middlesex Regiment, Dinapore (Lt.-Col. Blumfield)
- 10th Middlesex Regiment, Fort William (Lt.-Col. Diamond)
- 4th Border Regiment Maymyo (Lt.-Col. Waterlow)

1st Home Counties Brigade R.F.A.

- 1st Sussex Battery Mhow (Major Hovers).
- 2nd Sussex Battery Mhow (Major Darko),
- 3rd Sussex Battery Mhow (Major Barton).

2nd Home Counties Brigade R.F.A.

- 4th Sussex Battery Rawalpindi (Major Moss).
- 5th Sussex Battery Multan (Major Johns).
- 6th Sussex Battery Ferozapore (Major Bradford)

3rd Home Counties Brigade, R.F.A.

- 1st Kent Battery Jubbulpore (Major Oarder).
- 2nd Kent Battery Lucknow (Capt. Wise).
- 3rd Kent Battery, Jubbulpore (Major Deane).

The Indian "Sandhurst"—A Cadet College was opened in 1915 at Quetta for the training, during the war of cadets for the Indian Army. The qualifications of candidates are identical with those prescribed for admission to the Royal Military College at Sandhurst and are, briefly, that candidates must be of English parentage between the ages of 17 and 25 and accepted as suitable in all respects to hold a commission in the army. Entrance examinations are held in London half yearly, the usual examination fees being remitted for the time being. The successful competitors for these cadetships if medically fit, are then sent to India for a six months course of training. The parent or guardian of each cadet is required to deposit the sum of £25 for the provision of uniform, books etc. and £8 monthly for pocket money. Other expenses are paid by the Government. At the conclusion of the course the cadets, if suitable are, under the order of the Commander in Chief, posted with the rank of 2nd Lieutenant to units of the Indian Army. Further information as to the financial arrangements

ments and all other details can be obtained on application to the Military Secretary India Office, London, or to the Chief of the General Staff Simla. The complete scheme of training cadets in India comprises in addition to the college at Quetta, a college at Dehra Dun and one for candidates for the cavalry at Saugor. An Army Entrance Examination will be held in London on February 22, 1916 and following days, at which there will be open to competition—100 cadetships at the Training College at Quetta, India (for the Indian Army), less such number as may be awarded to King's Cadets, King's India Cadets or Honorary King's India Cadets. Forms of application will be furnished on application by letter addressed to the Secretary Civil Service Commission, Burlington-gardens, London, W. The forms should be completed and forwarded to the Secretary Civil Service Commission.

The first batch of 99 joined at Quetta in May, and in November the commandant reported that 96 gentlemen cadets were fit to receive commissions. The course of six months instruction at these colleges embraces drill, musketry, minor tactics, military history and strategy, physical training, riding, military engineering, military sketching and reconnaissance, organization, administration and military law and almost daily instruction in Urdu.

The St. John Ambulance Association in India, which since the outbreak of the war has firmly established itself at the Red Cross Society of India, is controlled by an Indian Council under the Presidency of H. E. the Viceroy. The executive work is carried out by a small Executive Committee composed as follows:—The Director General, Indian Medical Service, the President of the Railway Board, the Director of Medical Services in India, the Private Secretary to the Viceroy, the Surgeon to the Viceroy, a Representative of the Education Department, a Representative of the Foreign Department, the General Secretary, the Treasurer.

Lieutenant Colonel R. J. Blackham, C.B., V.C., has carried on the work of Hon. General Secretary in addition to his military duties for seven years. In November 1914 he was seconded by the War Office for duty as the Secretary of the Association in India. The Association has commodious offices at Simla and Delhi, and accompanies the Government of India in its moves from the Summer to the Winter capitals. It has a large Depot for distributing Ambulance Stores at Bombay and since the outbreak of the War the Indian Council has established a War Gifts Depot also at Bombay for the receipt and despatch of Red Cross gifts. This Depot dealt with comforts and gifts to the value of upward of eight lakhs (£80,000) during the first ten months of the war.

WIRELESS TELEGRAPHY

The annual report of the Indian Telegraph Department for 1914-15 states:—The total number of wireless stations rose from 17 to 18, of which 10 were coast stations open for general public communication with ships at sea. These coast stations dealt with 65,538 messages of all kinds as compared with 76,526 in 1913-14, the number exchanged with ships being 4,312 as against 5,692 in the preceding year. New stations were opened at Secunderabad, Madras and Rangoon and the stations at Mergal and Basen in Bengal were closed on the reconstruction of the Bay of Bengal stations (Port Blair, Diamond Islands and Victoria Point) leaving a net increase of one. The wireless stations worked satisfactorily throughout the year, but difficulty is still experienced in communicating during periods of atmospheric disturbance. The only serious breakdown during the year occurred in April 1914 when a severe hailstorm wrecked the aerial at Calcutta.

Licences to Officers.—The Government of India have decided that the granting of licences to military officers in respect of wireless telegraph apparatus used for experimental purposes shall be regulated by the following general principles: (1) When an officer conducts experiments in wireless tele-

graphy in his official capacity at the expense of Government no licence is required, but only executive permission which may be given so far as the Telegraph Department is concerned by the Director General, Posts and Telegraphs.

(2) When an officer carries on experiments as a private individual at his own expense he must obtain a licence. If the approval of the military authorities is required to what he proposes to do he should obtain such approval before the Director-General, Posts and Telegraphs is approached. The licence will then be submitted by the Director-General, Posts and Telegraphs, for the sanction of the Government of India.

(3) With reference to the above attention is drawn to the necessity for applying for licences to own and use wireless telegraph apparatus or installations, experimental or otherwise. Applications for such licences will be submitted through the Chief of the General Staff and will contain particulars regarding the apparatus showing (a) system it is proposed to employ, (b) maximum range of signalling with applicant's own receiving apparatus, (c) power (current and voltage) (d) source of power.

Racing in India.

Calcutta

King-Emperor's Cup Distance 1 mile—

Mr R R S s Bachelor's Wedding (9st 8lbs), F Templeman	1
Mr Thaddeus Evett (9st) W Huxley	2
Mr W Bartlett St Andrews Firth	3
H H Rajah Mr Ranbir Singh's Jacamar (9st 3lbs.) Trenoweth	4

Viceroy's Cup Distance 1½ miles—

H H General Nawabzada Obaidulla Khan's Kiltol (9st 3lbs.) Bowley	1
Mr R R S s Bachelor's Wedding (9st 3lbs.) F Templeman	2
Mr W Bartlett's St Andrews (9st 4lbs.) Firth	3
Mr Goudlass Knight's Key (8st 11lbs) Whalley	4

Governor's Cup Distance Race Course—

Mr Bartlett's St Andrews (7st 8lbs carried 7st 9lbs) Hardy	1
Mr Fyers Midland (8st 12lbs carried 8st 13lbs) Lynch	2
Zemindar of Nazirung's Miss Drake (7st 6lbs.) Vincent	3
Mr R R S s Work (8st 21lbs) P Brown	4

Prince of Wales' Plate Distance 1 mile—

H.H. the Maharajah of Patiala's Lescoteil (8st 2lbs) Templeman	1
Mr Bartlett's St Andrews (8st 8lbs.) Hardy	2
Mr R R S s Champion (9st 4lbs.) P Brown	3
Mr Thadden Walch Town (7st 1lb) Vincent	4

Grand Annual Distance 4 miles over 4 flights—

Mr Goudlass Politian (10st 8lbs) & Hoyt	1
Mr K. Dawson's Dolly Dimple (9st 10lbs) Williamson	2
Zemindar of Nazirung's Canberra (11st 8lbs) T Ferguson	3
Mr T Ferguson's Bellowee (9st carried 9st 11lb.) Northmore	4

The Metropolitan Distance 6 furlongs—

Mr Goudlass' Politian (9st.) Ruiz	1
Thakur Bipal Singh's Wildgiewa (7st 4lbs carried 7st 10lbs.) A. Kuhn	2
Mr R. R. S.'s Kampion (9st 11lb.) P Brown	3
Mr Bartlett's Santa Barbara FitzGibbon	4

Macpherson Cup Distance St. Leger Course—

Mr Goudlass' Matchlock (8st 5lbs.) Ruiz	1
Mr Kahn's Cherrywood (7st 9lbs.) Kai	2

Mr R R S s Bachelor's Wedding (9st 11lbs.) P Brown 3

Mr R R S s Work (8st 4lbs) Purto Singh 4

Merchants' Plate Distance 1½ miles—

Mr Bartlett's St Andrews (8st 11lbs.) Hardy	1
Mr Goudlass' Matchlock (8st 12lbs) Ruiz	2
Mr Fyers Midland (8st 7lbs) Lynch	3
Mr Choudhury's Milliner (7st 13lbs.) W Southall	4

International Pony Plate Distance 7 furlongs—

Mr J D Scott's Sea Lad F Lemar	1
Mr Goudlass' Symptoms (8st 12lbs) Whalley	2
Major Holden and Mr J D Scott's Lady Marchmont (8st 7lbs) W Huxley	3
Mr R Powell's Go On (9st 3lbs) Pirth	4

Coch Behar Cup Distance 1½ miles—

Mr Goudlass' Matchlock (8st 21lbs carried 8st 31lbs) Ruiz	1
Mr B. Souza's Valaloue (8st 1lb carried 8st 31bs.) Trenoweth	2
Mr T. Scott's (8st 8lbs) A. Kuhn	3
Mr Thadden Wayward and Wild (7st 4lbs) Lynch	4

Burdwan Cup R C and distance over seven flights of hurdles—

Mr M Goudlass' Politian (9st 7lbs) & Hoyt	1
Zemindar of Nazirung's Canberra (10st 3lbs) T Ferguson	2
Messrs R Pugh and H Olpherts' Lesto (9st 7lbs) Northmore	3
Mr J D Scott's Proprietor (9st 10lbs) Mr Rodrick	4

Tollygunge

Indian Grand National Distance about 3 miles—

Mr T. Curtis Hayward's Pilot (9st 6lbs carried 9st 10lbs) Mr Bush	1
Mr R A O Pugh's Dynevor Park (9st 3lbs) Northmore	2
Mr A L Butler's Sholto (10st 11lbs.) T Ferguson	3
Mr L Walker's Tommy Daw (9st 7lbs.) McNellage	4

Tollygunge Plate Distance 3 miles—

Mr Butler's Betty Birr (9st 7lbs carried 9st 8lbs.) Mr Roddick	1
Mr Walker's Shifting Sand (9st 21bs.) Mr Evers	2
Major Walter's Kesmeidon (9st.) Williamson	3
Mr D Scott's Sea Lad (9st 3lbs.) Barkay	4

Tollygunge Steeplechase Distance 1 mile—

Mr Hart's Exchange (9st 7lbs.) W O	
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Club Cup Distance 4 furlongs.—

- Mr Elliott's Blackwater (9st 7lbs.)
Mr Sayers
Mr Pike & Boardman (10st 11lbs.), Owner
Mr Hunter's Prince (11st 9lbs.)

Bombay

The Byculla Club Cup Distance 1½ miles.—

- Mr M. Goculdas First Call II. (7st 7lbs.) Hoyt
Mr R. R. S. Bachelor's Wedding (9st 12lbs.) Hardy
Mr M. Goculdas Matchlock (8st 13lbs.) Hill
Zemindar of Nagergunj's Miss Drake (7st 3lbs.) Kamed

The Turf Club Cup Distance 1½ miles.—

- Mr R. R. S. Majbur (8st 12lbs.) Hardy
General Nawabzada Obaidulla Khan & Gardanella (8st 9lbs.) Japhthi
Messrs M. Goculdas and P. Mathuradas Mexico (8st 11lbs.) Hoyt
Mr A. A. Mahomed & Bevrut (8st 4lbs.)
Mr J. Crawford

Bombay Derby.—

- Mr R. R. S. & Kavid (9st 10lbs.) Purtoo Singh
Mr A. S. Oomer's Majbur (8st 3lbs.) Abba
Messrs Kall Chawan and Shaik E. Malli Longboat (8st 5lbs.) Trenoweth
General Nawabzada Obaidulla Khan & Gold Fish II. (8st 11lbs.) Crowden

The Grand Western Handicap Distance about 1 mile 1 furlong.—

- Mr. R. R. S. & Kempton (9st), Kalkushroo
H. H. Kour Sahib of Patiala & Le Sotell (8st 9lbs.) Templeman
Mr M. Goculdas Southline (7st 11lb.) Purtoo Singh
Mr M. Goculdas Refresher (7st 10lbs.) Hoyt

The Willington Plate Distance about 7 furlongs.—

- General Nawabzada Obaidulla Khan & Lady Muriel (7st 2lbs.), Purtoo Singh
Mr M. Goculdas Southline (7st 3lbs.) Harrison

- H. H. Kour Sahib of Patiala & Le Sotell (9st 4lbs.), Templeman
Captain Hilliard's Lakme (8st 4lbs.) Ferguson

Bombay City Plate.—

- Mr M. Goculdas Arthur B. (8st. 6lbs.) Hoyt
Mr M. Goculdas Older (9st 3lbs.), Ferguson
Mr. R. R. S. & Bachelor's Wedding (9st 10lbs.) Hardy
Mr. R. R. S. & Kempton (9st 5lbs.), Kalkushroo

The Gave Cup Distance about 1 mile 1 fur long.—

- Mr A. A. Mahomed & Bevrut (8st. 13 lbs.), Mr Crawford
Mr R. R. S. & Dhaman (9st 10lbs.), Kalkushroo
General Nawabzada Obaidulla Khan & Singer (8st 13lbs.) Trenoweth
Messrs M. Goculdas and P. Mathuradas Nakib (9st 12lbs.) Hoyt

Malabar Hill Plate.—

- Mr M. Goculdas Arthur B. (9st 8lbs.) Hoyt
Mr M. Goculdas Polish (9st 8lbs.), Ferguson
Mr R. R. S. & Bachelor's Wedding (9st 3lbs.) Kalkushroo

The Gough Memorial Plate Distance 6 furlongs.—

- Mr A. S. Oomer's Kabaraman (7st 11lbs.) Harrison
Messrs M. Goculdas and P. Mathuradas Baloz (9st 9lbs.) Hoyt
General Nawabzada Obaidulla Khan & Bravo (8st 10lbs.) Purtoo Singh
Mr R. R. S. & Abdul Malik (9st 13lbs.) Kalkushroo

The Mansfield Plate Distance 6 furlongs.—

- H. H. the Maharaja of Gwalior's Two Brigs (7st 5lbs.) Southall
Mr M. Goculdas Polish (9st 6lbs.) Hoyt
General Nawabzada Obaidulla Khan & Lady Muriel (7st 6lbs.) Purtoo Singh
Mr Hosi Billimoria's Hoppner (7st 7lbs.) Kalkushroo

The Flying Plate Distance 5 furlongs (straight).—

- H. H. the Maharaja of Gwalior's Two Brigs (7st 11lbs.) Southall
Mr M. Goculdas Polish (9st 9lbs.) Hoyt
Capt Hilliard's Lakme (8st 4lbs.) Ferguson
Mr M. Goculdas Primrose Morn (9st 8lbs.) Pratt

Poona

Poona Derby Distance 1½ miles.—

- Messrs M. Goculdas and P. Mathuradas S-sarrow Hawk (9st 9lbs.), Barrett
Mr All bin Talib & Black Malik (8st. 3lbs.) Majeed
Mr Gahagan & Sweden (8st 3lbs., carried 8st. 4lbs.), Zamli
Mr R. R. S. & Kayid (8st 7lbs.), Firth

Trial Plate Distance 1 mile.—

- Mr R. R. S. & Criton (7st. 10lbs.), Kalkushroo
Mr. Heath & Orloff (8st., carried 8st 1lb.), Templeman

General Nawabzada Obaidulla Khan s Kiltol (8st 11lbs) Bowley	3	Messrs. M. Goculdas and P. Mathuradas Mexico (8st 5lbs) Barrett	4
H. H. Rajah Ranbir Singh of Patiala s Jacamar (7st. 10lbs) Buckley	4	General Nawabzada Obaidulla Khan and Mr. Kali Charan s Bowing Boat (7st. 10lbs) Pullin	4
The Aga Khan s Cup Distance 1½ miles —		The Stand Plate Distance 1 mile —	
General Nawabzada Obaidulla Khan s Kiltol (8st 11lbs) Bowley	1	Mr. Wilton Bartlett s St Andrews (8st 8lbs) Firth	1
Mr. R. R. S s Bachelor's Wedding (9st 3lbs) Kalkhuroo	2	Mr. M. Goculdas Southline (7st 2lbs) M. laon	2
H. H. Raja Sir Ranbir Singh of Patiala s Jacamar (7st 10lbs carried 8st 2lbs) Trenoweth	3	H. H. Raja s Ranbir Singh of Patiala s Le Soleil (8st 10lbs), Templeman	Dead heat 3
H. H. Maharaja of Gwalior's Manilla (8st 10lbs) Barrett	4	General Nawabzada Obaidulla Khan s Lady Muriel (7st 11lbs) Purtoosingh	
H. H. the First Aga Khan s Commemoration Plate Distance 1½ miles —		The Western India Stakes Distance 1½ miles —	
Messrs. M. Goculdas and P. Mathuradas s Nakib (9st 10lbs) Barrett	1	Mr. Kelso s Cherrywood (8st. 12lbs) Lynch	1
Mr. R. R. S s Thank You (8st 7lbs) Kalkhuroo	2	Mr. Wilton Bartlett s Santa Barbara (7st. 9lbs) Kalkhuroo	
Mr. Dara Cowasjee s Terror (8st 11lbs) Zamli	3	Mr. R. R. S s Bachelor's Wedding (9st 12lbs) F Templeman	
Mr. Ali bin Talib Monji s Old (8st 4lbs) Pratt	4	Mr. M. Goculdas s Cider (9st 1lbs) Barrett	
The Arab Pony Derby Distance 6 furlongs —		The Turf Club Cup Distance 1½ miles —	
General Nawabzada Obaidulla Khan s Soomram (8st 3lbs) Bowley	1	General Nawabzada Obaidulla Khan s Singer (8st 11lb) Bowley	
Mr. Abdoola Faras Durban (8st 2lbs) Hardy	2	Nawab Najaf Ali Khan s Sir Knight (8st. 8lbs) A Templeman	
Messrs. M. Goculdas and P. Mathuradas s Winchester (8st 12lb) Hoyt	3	Mr. M. Goculdas s Tajmuloock (7st 8lbs) Hoyt	
The Poona Plate Distance about 5 furlongs —		Mr. R. R. S s Dhaman (9st 11b), F Templeman	
Mr. M. Goculdas s Edward III (8st 4lbs) Barrett	1	The Cursetjee Dunsishaw Plate Distance 1 mile —	
Mr. Horni P. Dilmoria s Hopper (8st 11b) Kalkhuroo	2	Mr. R. R. S s Thank You (8st 11b) F Templeman	
Mr. M. Goculdas s Polish (8st 3lbs) Pullin		Mr. R. H. Gahagan s Wellington (7st 9lbs), Lynch	
Ganeshkhind Plate Distance 6 furlongs —		Mr. Erach Jhibhoys s Young Majub (8st 11lbs) A Templeman	
Maharajah Gwalior's Two Briggs (8st 11b) Hoyt	1	The Aga Shamshudin Plate Distance 7 furlongs —	
Mr. J. L. Alnsworth s Vanity Box (7st 8lbs carried 7st. 9lbs) Buckley	2	Mr. J. L. Alnsworth s Vanity Box (7st 12lbs) Buckley	
Mr. G. K. s Madrina (8st 10lbs) Harrison	3	Raja Sir Ranbir Singh of Patiala s Le Soleil (8st 12lbs) A Templeman	
Genl. Nawabzada Obaidulla Khan s Lady Muriel (7st 12lbs) Bowley	4	General Nawabzada Obaidulla Khan s Lady Muriel (7st 12lbs) Bowley	
Wanowrie Plate Distance 7 furlongs —		Mr. M. Goculdas s Matchlock (8st 3lbs) Barrett	
Mr. R. R. S s Thank You (8st. 8lbs) Kalkhuroo	1	The Hunters Flat Race. Distance 1 mile —	
Mr. Abdulla Faras Durban (8st 3lbs) Zamal	2	Mrs. H. P. Gibbs s Guinevere (12st 7lbs), Mr Cannon	
Mr. R. H. Gahagan s Wellington (8st 3lbs), Buckley	3	Mrs. W. Turner Green s Lady Falkirk (12st. 7lbs) Capt. Meade	
Mr. M. Goculdas s Polish (8st. 6lbs) Hoyt	4	Capt. W. B. White s Offshore (12st. 7lbs), Owner	
The Governor's Cup Distance — B. C. and distance —		Mrs. C. N. Wadia s Highplay (12st 7lb), Mr Harris	
General Nawabzada Obaidulla Khan s Singer (8st 11lbs) Bowley	1		
Mr. R. R. S s Kayid (7st 10lbs), Kalkhuroo	2		

The St. Leger Plate Distance R. U and distance—

- M. H. Raja Sir Ranbir Singh of Patiala & Jammur (Set. Siba.) Quinn 1
 Mr M. Goudass Matchlock (Set. Siba.) Barrett 2
 Mr. Wilton Bartlet & St. Andrews (Set. Siba.) Firth 3
 Mr M. Goudass Pretty Good Sort. (Set. Siba.) Buckdev 4

The Eclipse Plate Distance about 5 furlongs—

- Mr M. Goudass Polish (Set. 7lbs.) Barrett 1
 General Nawabzada Obaidulla Khan & Lady Muriel (Set. 3lbs.) Partoosinch 2
 Mr Kelso & Miss Rolleston (7 & 1lb) Lynch 3
 Mr J. L. Ainsworth & Vanity Box (Set. 4lbs.) Buckley 4

The Arab Champion Plate Distance R. C and distance—

- Nawab Nafai Ali Khan & Sir Knight (Set. 10lbs.) A. Templeman 1
 Messrs. M. Goudass and P. Mathuradas & Nabib (Set. Siba.) Barrett 2
 Mr R. R. & S. Thank You (Set. 10lbs.) F. Templeman 3
 General Nawabzada Obaidulla Khan & Singer (Set. 10lbs.) Bowley 4

Lucknow

Royal Calcutta Turf Club Chase Distance 3 miles—

- Mr Butler's Sholto (11st 3lbs.) Roddick 1
 Great Oudh Handicap Distance 6 furlongs—
 His Highness General Nawabzada Obaidulla Khan & Mohiel (Set. 1lb.) Bowley 1
 Mr. Watson Smyth & Abbaba (Set. 13lbs.) Randall 2
 Sardars Dyal Singh and Jaswant Singh & Old Joe (Set. 7st.) Vincent 3
 Mr Skinner's Mubrook (Set. 14lbs.) Hoyt 4

Lucknow St. Leger Distance 2 miles—

- Captain Naylor's Rambo (12st 7lb.) Thwaites 1
 Major Ridgway's Royal Gift (Set. 7lbs.) Kearney 2

Stewards Cup Distance 1 mile—

- Sirdar Jewan Singh's Menes (Set. 11lbs.) Vincent 1
 Thakur Sipal Singh & Mayfly IV (Set. 8lbs.) Brown 2
 Mr Lander's Mahoney Boy (Set. 7lbs.) Kaita 3
 Capt. Cairnes & Mr Sanford's Kit Grey Leg (Set. 8lbs.) A. Hoyt 4

Civil Service Cup Distance 6 furlongs—

- Sirdar Jewan Singh's Army (Set. 4lbs.) Trenworth 1

Mr Titwillow's Little Arch (Set. 8lbs.) Quinn 2

- Mr Goudass Kiora (Set. 4lbs.) A. Hoyt. 3
 Messrs. Swan and Hillard & Tod (Set. 12lbs.) FitzGibbon 4

Lucknow Derby Distance 1½ miles—

- Thakur Sipal Singh & Mayfly IV (Set. 12lbs.) Kohen 1
 Mr Goudass Pretty Good Sort (Set. 12lbs.) Kaita 2
 His Highness the Kour Sahib of Patiala & Mili (Set. 11lb.) W. Southall 3
 His Highness the Kour Sahib of Patiala & Hamara (Set. 6lbs.) Clarke 4

The Points Cup Distance 6 furlongs—

- His Highness Nawabzada Obaidulla Khan & Arlington (Set. 3lbs.) Bowley 1
 Mr Goudass Kiora (Set. 12lbs.) Kaita 2
 Mr Titwillow's Little Arch (Set. 2lbs.) Roddick 3
 Captain Cairnes & Sanford's Friendship (Set. 4lbs.) Putroo Singh 4

Meerut

Meerut Plate Distance 5 furlongs—

- Mr R. Skinner's Uncle B (Set. 8lbs.) Williamson 1
 Captain S. O. Robinson's Gwen (Set. 2lbs.) carried Set. 3lbs.) Quinn 2
 Mr J. D. Scott & Sea Lad (Set. 11lbs.) FitzGibbon 3
 Captain Cairnes & Mr Sanford's First Choice (Set. 7st 8lbs.) Lynch 4

Royal Calcutta Turf Club Chase Distance 2 miles—

- Mr A. L. Butler's Sholto (11st 3lbs.) Northmore 1
 Mr M. I. Oake & Keetrel (Set.) Williamson 2
 Cooch Behar Cup Distance 7 furlongs—
 Mr Ariff's Valiant (10st 7lbs.) Trahan 1
 Thakur Sipal Singh & Hard Cash (10st 1lb.) Northmore 2
 Mr Hajji Osman Saif & Aubrey (11st.) Mashjan 3
 Thakur Wajindra Singh & Ver Lad (10st 10lb.) FitzGibbon 4

Governor General's Cup Distance 1½ miles—

- Mr Hajji Osman Saif & Aubrey (Set. 13lbs.) Mashjan 1
 Mr Ariff's Valiant (Set. 4lbs.) Trahan 2
 H. H. the Rajah Sir Ranbir Singh of Patiala & Housemaid (Set. 11bs.) W. Southall 3
 Lakshmi Kanta Raj Urs Cowellip (Set. Siba.) Lynch 4

Jodhpore Cup Distance 1½ miles—

- Colonel Munsumden's Dancing Mistress (Set. 12lbs.) Trahan 1
 Captain Weldon and Cairns' Lark Lodge (Set. 8lbs.) carried (Set. Siba.) Williamson 2
 Mr Latham's Sporty Boy (Set. 7lbs.) Lapheth 3

Meerut Silver Vase Distance 6 furlongs —
 Sirdar Jewan Singh's Hyrin (Set. 11lbs.) 1
 Northmore
 Sirdar Jewan Singh's Meager (Set. 11lbs.) 2
 Barrett
 Mr. Davison's Ali Baba (Set. 9lbs.) Trahan 3
 Kour Barnam Singh's Imperial (7st. 2lbs.) 4
 J Southall

Ambala.

Royal Calcutta Turf Club Handicap Distance 7 furlongs.—
 Sirdar Jiwan Singh's Mones (Set. 11lbs.) 1
 Trahan
 Col. Muscenden's Dancing Mistress (7st. 9lbs.) J Southall 2

H. H. the Rajah Sir Ranbir Singh of Patiala's Jacamar (10st. 10lbs.) Quinn 3

Incharam Cup Distance 1 mile.—

H. H. the Rajah Sir Ranbir Singh's Mii (Set. 13lbs.) W Southall 1

Sirdar Jiwan Singh's Morino (7st. 11lbs.) Melson 2

Col. Muscenden's Dancing Mistress (Set. 7lbs.) Trahan 3

Patiala Cup Distance 1 000 yards.—

Mr. B. Skinner's Brandy II (Set. 11b.) E. Skinner 1

Sirdar Diyal Singh and Jaswant Singh's Old Joe (7st. 11lbs.) W Southall 2

Col. Muscenden's Monty (7st. 5lbs.) Trahan 3

Ranbir Cup Distance 1 mile.—

Sirdar Jiwan Singh's Mones (10st.) Trahan 1

Captain Cairnes and Weldon's Lark Lodge (Set. 13lbs. carried 7st. 2lbs.) Abdul Wahed 2

Major Hood's Pat's Pet (Set.) Crowden 3

Patiala Cup Distance 1 000 yards.—

Raja Sahib of Patiala's Little Wonder (Set. 5lbs.) J Southall 1

Captain Moestyn Owen's Miss Zena (Set. 8lbs.) Crowden 2

Sirdar Jiwan Singh's Miss Lily (Set. 2lbs.) Trahan 3

Panna Jall Cup Distance 1 000 yards.—

Sirdar Diyal Singh Chhachi's Old Joe (Set. 6lbs.) Trahan 1

Captain Kennedy's Najmi (Set. 7lbs.) Crowden 2

Kour Barnam Singh's Imperial (7st. 12lbs.) J Southall 3

Bangalore.

The Maharajah of Mysore's Cup Distance 1 mile.—

Mr. D. B. Captain's Sugar Loaf (Set. 11b.) Melson 1

Mr. M. Goudidas' Double Chin (Set. 4lbs.) A. Hoyt 2

The Esquire of Namerun's Miss Drake (Set. 4lbs.) A. Ferguson 3

Mr. T. M. Thadden's Wayward and Wild (Set.) Bowley 4

The Civil and Military Service Plate Distance 1 mile.—

Lieut.-Col. B. Faunce's Delusion (Set.) A. Hoyt 1

Lieut.-Col. A. S. Arnold's Lucy Gitters (late Bijli) (Set. 3lbs.) Nard Singh 2

Lieut.-Col. A. S. Arnold's Anarchist (Set. 12lbs.) A. Ferguson 3

The Bangalore Cup Distance 1 1/2 mile.—

Mr. D. B. Captain's Sugar Loaf (Set. 5lbs.) Melson 1

Mr. J. C. Galstaun's Scotch Plaid (7st. 10lbs.) Kalkoosbroo 2

Mr. M. Goudidas' Double Chin (Set. 12lbs.) A. Hoyt 3

Mr. M. Goudidas' Pretty Good Sort (Set. 10lbs.) Bowley 4

Lahore.

Lahore St Leger—

Major Holmes's Barmaid (Set. 2lbs. carried 7st. 8lbs.) Southall 1

Mr. Fleming's Sahara (11st. 7lbs.) Trahan. 2

Sirdar Jewan Singh's Fortunate Lady (7st. 13lbs. carried 8st. 7lbs.) Quinn 3

Lahore Cesarewitch—

Capt. Meynell's Silver Memory (Set. 5lbs. carried 8st. 12lbs.) Quinn 1

Capt. Weldon's Lark Lodge (Set. carried 8st. 7lbs.) Trahan 2

Captains Cheape and Wobolt's Pat's Pet (Set. 11lbs. carried 9st. 4lbs.) Randall 3

Mamdot Cup Distance 1 mile.—

Rajah Sahib of Patiala's Housemaid (Set. 3lbs. carried 9st. 7lbs.) Quinn 1

Miss Kirkpatrick's Flame (Set. 3lbs. carried 9st. 8lbs.) Bal Kerra 2

Mr. Nizamuddin's Chamber (Set. 8lbs.) Jaqar 3

Lieutenant-Governor's Cup Distance 1 mile.—

Mr. R. T. Clarke's Vigorous (Set. 4lbs. carried 9st. 8lbs.) Melson 1

Capt. Bruce's Floradora (10st. 10lbs. carried 10st. 2lbs.) Capt. Wagniac 2

Mr. Sydney Smith's Alora (Set. 10lbs. carried 9st. 8lbs.) Mr. Holland 3

Ranbir Cup Distance 5 furlongs.—

Mr. Sydney Smith's Happy Days (Set. 10lbs.) Durga 1

Capt. S. O. Robinson's Gwen (Set. 10lbs. carried 10st.) Crowden 2

Sirdar Jewan Singh's Mavoutneen (10st. 3lbs. carried 10st. 7lbs.) Trahan } Dead heat.

Sirdar Soojan Singh's Kasmahano (Set. 7lbs.) Thakar }

Funjab Cup —

Captain Beatty's Virago (10st 3lbs carried 1st 12lbs) Owner	1
Captain Fuller's Blue Boy (9st 10lbs) carried 9st 7lbs.) Owner	2
The 37th Lancers Rumour (10st 8lbs) Abdul	3

Merchant's Cup Distance 6 furlongs —

Major Grant's and Mr Quinn Youngs B M Bonnie Bush (7st 7lbs.) Karim	1
Major P Gould's Sincere (9st 8lbs carried 9st 12lbs.) Trahan	2
Captain Mostyn Owens's Miss Zenia (9st 12lbs. carried 7st 2lbs.) Nelson	

Rangoon

Rangoon Derby —

Maung Po Toke's Thadwin Sun Vincent	1
Maung Kan Yah's Otmare Karka	
Maung Thin's Blue Beau	

Rangoon St. Leger —

Mr Burjorjee's Taseanian McLeod	1
Maung Op Toke's Thong Sein	2
Maungba Be's Blue Beau	3

Harvey Adamson Stakes

Mr Donaldson's Coronation	1
Talk Kee's Sein Maung	
Polwin's Auburn	3

Secunderabad

Grand Annual Hurdle Handicap Distance 2 miles —

First Venture (12st 12lbs.) Hardy	1
Metal Girl (11st.), Mr Scott	
Violet (10st.), Capt Durban	3

Nizam's Purse Distance 5 furlongs — A handicap for Horses —

Grace (9st.), Mr Brandfoot	1
Mouderike (9st. 7lbs.) Capt Durham	2
Briefcase (9st.), Mr Holland	3

Kirkee

Poona and Kirkee Hunt Cup Distance 1 mile. —

Mrs. Turner Green's Lady Falkirk (12st 7lbs.), Captain Mead	1
Captain Rigby's Morganatic (12st 7lbs) Mr Bakerwell	2
Mr Liddell's Owner Up (12st 7lbs) Owner	3

Royal Artillery Cup Distance 1 mile —

Mr. Barnes Trey O Hearts (12st 7lbs.), Owner	1
Mr. W. Scott's Scottie (12st 7lbs), Mr. Dowling	2

Beg Cup. Distance 7 furlongs —

Captain Cairn's and Mr Sanford's Duballow (9st 13lbs carried 10st 11b) Mr Cannon	1
--	---

Mr A. R. Dakhell's Victory (8st. 8lbs.), Ibrahim	2
Mr Sheikh Issmail's Minimax (7st 12lbs.), Mujeed	3

Turf Club Open Handicap Distance 5 furlongs. —

Mr Yakoub Zuhair's Pharaoh (9st. 8lbs., carried 8st 4lbs.), Mujeed	1
Mr Stavridis Lord Satu (9st. 6lbs.) Mr Harrison	2
Mr A. B. Zuhair's Kassam (7st 8lbs.), Ibrahim	3

Aundh Cup Distance 5 furlongs —

Mr P. Maisee's Arabian Consul (8st.) Kees	1
Mr A. Hazam's Present (9st. 4lbs.), Mujeed	2
Mr A. Hazam's Jingle (9st 4lbs.) Ibrahim	3

Karachi

11th Western India Turf Club Stakes Distance 1 mile. —

Mr Muller's Hushabv (9st 7lbs.) Churchward	1
Mr Cresswell Jessie (11st 7lbs), Gumai	2
Mr Mahomed Ghose's Moselle (7st carried 9st 11b) Mr Chapman	3

Stewards Handicap Distance 7 furlongs —

Mr Muller's All's Well (1st 13lbs.) Thakur	1
Cap. Currie and Sandford's First Choice (8st.) Maloo Ramji	2
Capt Meynell's Miller's Daughter (9st. 7lbs.) Trahan	3

Quetta

Grand National Handicap —

Mr G. Steer's Lady Godiva (10st 7lbs) Owner	1
Mr G. Steer's Tot (11st. 2lbs.) Captain Washborough	2
Mr J. Saks's Domino (11st. 5lbs.) Owner	3

Barrackpore.

Barrackpore Cup Distance 7 furlongs. —

Mr Bhican's Lady Doris (8st 12lbs.) Williamson	1
Mr Galstaun's Moigibby (9st. 8lbs) Owner	2

Madras.

Governor's Cup —

Hajee Osman Sait's Ambrey	1
Yuvaraja of Mysore's Little Speed	2

Mysore.

H. H. the Maharaja not having accorded sanction no races were held in 1919

PAPERCHASING

Ladies Paperchase Cup (Calcutta) —

Mrs Tanner 1 Mrs Deakin 2 Miss
Dumlan 3

Pony Paperchase Cup (Calcutta) —

Mr Lamond Walker 1 Mr Roddick 2
Mr Deakin 3

Calcutta Paperchase Cup —

Mr Evers 1 Mr Mah 2 Mr F L
Walker 3

Calcutta Light Horse Paperchase —

Challenge Cup won by Mr Eddis Heavy
weight Cup won by Capt Crum

POINT TO POINT RACES

Bombay

Bombay Light Horse Inter Troop Race —

C Troop No 1 — Sergt Lodge Corporals
Ellis Beldand Lowndes and Lance
Corpl Sadler

D Troop No 1 — Sergt Kirk Smith
L-Corpl Robinson Trooper Brabazon
Jones and Ridland

C Troop No 2 — Trooper Boyaziz Trooper
Forrest Trooper Fletcher Trooper Drutt

B Troop — Trooper Dalley Trooper Wal-
ker Trooper Graham Trooper Muldrum

D Troop No 2 — L Cpl Herbert Trooper
Gitchrist Trooper Glick Trooper Allen

Delhi

Pony Chase —

Mr Selwyn (11th Lancers)

Punjab Light Horse Race —

Mr Moteside

The Galloway Cup — Presented by Major-
General Galloway Honorary Colonel 2nd
Light Cavalry —

Capt. Durham's Morning Glory Owner 1
Col. Moore's Rat Catcher Hoo-sain Daji Raj 2
Mr Moore's Mary Owner 3

The Regimental Challenge Cup — Presented by
Colonel Moore —

Col Moore's Red Shot 1
Mr E. E. Hickson's Aftah 2
Mr Erany's Unknown 3

LAWN TENNIS

Simla

Championship Tournament —

Men's Doubles — Maharaj Singh and J W
Green beat G M. Coates and E. P Jones

Mixed Doubles — Miss Bowder and G M.
Coates beat Mrs Stead and Leighton
Crawford

Men's Singles — C Moor beat Leighton
Crawford

Ladies Singles — Miss Bowder beat Mrs.
Gracey

Viceregal Lodge (Simla) Tournament —

Mrs. Gracey and Mr Vickery beat Miss
Walker and Mr Powell

Simla Open Handicap Tournament —

Men's Singles — Mr. P C Vickery beat Mr
H. S. Slater

Ladies Singles — Miss Bowder beat Mrs
Walker

Mixed Doubles — Kunwar Maharaj Singh and
Ebl Amrit Kaur beat Mr and Mrs. Johnson.

The annual Allahabad Lawn Tennis Tourna-
ment, which should have taken place in Febru-
ary, was abandoned.

Bengal.

Bengal Championships —

Men's Single — L Deane beat F Boxwell
6-0 4-6 6-1 0-6 6-4

Men's Doubles — A W shallow and D S
shallow beat N Deane and L Deane 6-2,
0-4 0-6 6-3 6-3

Mixed Doubles — Mr Carrol and Miss Mac-
naught beat Mr Deane and Mrs. Lamond
Walker 6-1 9-7

Punjab

Punjab Championships —

Men's Singles — Salem beat Deane 6-3 6-2,
6-3

Men's Doubles — Atkinson and Deane beat
Jacob and Lumsden 6-2 6-1, 6-2.

Ladies Singles — Miss Bowder beat Miss
Humphreys 6-4, 6-4

Ladies Doubles — Miss Leslie Jones and
Mrs. Hadlow beat Miss Ghas and Miss
Bowder 7-5 6-2

Mixed Doubles — Atkinson and Miss Leslie
Jones beat Deane and Mrs. Gracey 7-6, 6-3.

Bombay**Western India Tournament.—**

Singles—Ranga Rao beat N F Naoroji

Men's Doubles—England and Kemble beat J A D Naoroji and Engineer

Mixed Doubles—England and Mrs. England beat Jackson and Mrs. Nelson

Murray Cup.—

E D England beat T A Kemble

Condor Tournament.—

V V Bhadkamkar and R A Wagle beat Karve and S. B. Modi

Coonoor**Ladies Cup.—**

Mrs. J O Bain

Gentlemen's Cup.—

Staff Sergeant J Parselle

Open Tournament (Annual).—

Mixed Doubles—Mrs. Turner and Capt. Palmer beat Mrs. D Harvey and Major Brown

Men's Doubles—Major Brown and Mr. Parselle beat Messrs. Subasava Rao and K. V. Krishnaswamy Iyer of Madras.

Ladies Doubles—Mrs. D Harvey and Mrs. Pearce beat Miss Simpson and Miss McLeod.

Men's Singles—J. Parselle beat Major Brown

Matheran.**Matheran Tournament.—**

Men's Singles—Mr. Judhow beat Mr. England.

Mixed Doubles—Mrs. England and Mr. Kemble beat Mr. and Mrs. W. Reid.

Ladies Singles—Mrs. England beat Mrs. W. Reid

CRICKET**Bombay Cricket Week.—**

1 England (Lord Willington's side) defeated India by an innings and 263 runs (Major J G Greig scored 216 and Captain K. O. Goldie 104)

2 Hindus draw with Parsia Close finish Hindus first innings—388 Parsia first innings—206 second innings 246 for loss of five wickets. (Mr. P. Vithal scored 101 Mr. S. M. Chothia 91 not out Mr. V. V. Kantak 91)

Quadrangular Tournament (Poona).—

Presidency Europeans beat Hindus in the final match by 10 wickets

Colin Challenge Shield (Ajmer).—

Jhalawar C. beat Railway R. C. by 77 runs

Gaekwar Cup.—

Balabuddin College (Jumagadh) beat the Baroda College by an innings and 250 runs

Northote Shield (Bombay).—

St. Xavier's College beat the Fergusson College by 139 runs.

Moston Tournament (Naini Tal).—

Aligarh, Past and Present beat the Hampshire Regiment.

HOCKEY.**Aga Khan Tournament (Bombay).—**

Lebanian S. C. 2 goals
Grant Medical College N.G.

Junior Aga Khan Tournament (Bombay).—

St. Xavier's High School 2 goals
New High School 1 goal

Brighton Tournament (Calcutta).—

Managers 5 goals
St. Xavier's College N.G.

Aga Khan Tournament (Poona).—

Signal Units Depot 4 goals
Bombay Customs N.G.

Naini Tal Gym. Tournament.—

The Secretariat 1 goal
St. Joseph's College "A" N.G.

Bangalore Gymkhana Tournament.—

7th Hussars 4 goals
St. Joseph's College 2 goals

Oudh Police Tournament.—

Hardoi Police Team 3 goals
Lucknow Police Team 1 goal

Luximbilla Cup (Calcutta).—

Lucknow 2 goals
Aligarh N.G.

Madras Tournament.—

Hockey, M. C. C. 4 goals.
Parasuram, M. C. C. N.G.

FOOTBALL.

Indian Football Association Tournament (Calcutta).—		Elliot's Shield Competition (Calcutta).—	
Calcutta Football Club	3 goals	Medical College	2 goals
Customs Football Club	Nil	Ripon College	Nil
Trades Cup (Calcutta).—		Harwood League (Bombay).—	
Howrah Rovers	3 goals	Royal Garrison Artillery (Colaba)	
Sporting Union	Nil	Calcutta Rugby Cup.—	
Six a Side Tournament (Calcutta).—		10th Middlesex Regiment	14 pts.
Middlesex Regiment	6 pts	Calcutta Scottish	4 pts
E B S Railway	Nil	Poona Tournament.—	
		2=2nd Hants Battery	3 goals
		2=1st Hants Battery	Nil

GOLF

18 Hole Medal Sweepstake (Bombay).—		Ladies Handicap Medal (Nasik).—	
Seniors.—J H. Hardie and T K Fordyce		Mrs Harrison 106—18=88	Mrs Anderson
tie with 77		91+4=95	
Juniors.—Kibblewhite and H. Provins		Nasik Gymkhana Cup (Nasik).—	
tie with 71		Rigby 86—6=78	Lowndes 86—4=82
Scratch and Handicap Medal Competition (Bombay).—		Ladies Foursomes (Nasik).—	
Seniors.—First, R. Kidd 38, 89=77—2=76		Mrs Nelson and Mrs Hobson win by 3 up	
Second, H. L. Simms 37 41=78 Scr 78.		and 2 from Mrs. Mould and Mrs Harrison	
Juniors.—First, G A Johnson 43 46=89—		President's Cup (Nasik).—	
= 87 Second H E D Simon 61 44= 96		R D England 80+4=84	Hearson 80—6=84
=12=83.		Captain's Cup (Nasik).—	
Blackheath Gold Medal (Bombay).—		Lowndes (2 up) Hardie	
Seniors.—H. L. Simms (Scr) and R D		P W D Vase (Nasik).—	
England (+8) tied with 76 H L Simms		Mrs. Hobson and Gorrie 27	Mrs Atchison
won the handicap prize		and Moyton	
Juniors.—D H. North (—12) won with 80		Wellington Tournament.—	
Calcutta Silver Challenge Medal (Bombay).—		Miss Harvey and Mr J Burnham, 1	Mrs
C C Sherwood (—5) won with 35		Harvey and Capt Baker, 4th Somerset	
Madras Silver Medal (Bombay).—		L. I. 2.	
W L E. Atkin 48—2=41 A F Wilk		Ladies Championship (Calcutta).—	
(47—5=42) C C Sherwood 51—3=48		Mrs Whisk 1 Mrs Bromwell 2	
Forty Two Medal (Bombay).—		Penang Silver Medal (Calcutta).—	
H K Hart (1 down on Bogey)		Mr C W Maxwell (82—12=73)	Mr E.
Wimbledon Challenge Cup (Bombay).—		Saunders (80—14=81)	
Seniors.—E. Hargreaves.		Merchants Cup (Calcutta).—	
Juniors.—S A. Johnson.		Gillanders Arbuthnot, 828	James Finlay
Bombay Gymkhana Cup (Nasik).—		and Co 549	Moran and Company 563
Ridland 86—4=82 Anderson 101—16=86		Amateur Golf Championship (Calcutta).—	
and Reid 101—15=86		J D Gathral won by 5 and 4 from	
		Mr Fernie	

POLO

Punjab Tournament.—		Simla Tournament.—	
Jallandabad Gymkhana	2 goals	Viceroy's Staff	4 goals
5th Cavalry	Nil	Mr Holliday's Team	1 goal
Bardilly Tournament.—		Ambala Tournament.—	
Civilians	7 goals	Combined Depots of 9th Hodson's	
Military	Nil	Horse and Poona Horse	2 goals
Carnarvon Cup (Calcutta).—		7th Hussars	1 goal
Babar	7 goals		
Calcutta "C"	5 goals		

CHESS.

Bombay Tournament.—		B Class.—1st prize Mr A. N. Gadre 2nd	
A Class.—Mr. S. V. Bodas, championship		prize Mr D. Shende 3rd prize, Mr S. P.	
prize Messrs V K. Khadkar and R P		Patel 4th prize, Mr D J Variawa and	
Deshpande tied for the second prize.		5th prize Mr. S. B. Joshi.	

Chronicle of the year 1915.

JANUARY

1st.—The New Year's Honours List announced the following decorations—One K.C.S.I. (Major Gen. W. B. Birdwood), two G.C.I.F. (The Maharaja of Venkatasagiri and the Yuvaraj of Mysore), twenty-one C.I.E., two Honorary C.I.E., six Knighthoods (Mr Justice Heaton, Bombay; Mr M. G. C. Buchanan, Bangalore; Mr Justice Johnstone, Lahore; Mr G. Dunbar, Calcutta; Dr J. H. Marshall, Archaeological Department; and Mr S. P. Sinha, Calcutta), nine Gold and twenty Silver Medals of the Kaiser i Hind.

3rd.—The appointment of the Hon. Sir Harcourt Butler to be Lieut. Governor of Burma in succession to Sir Harvey Adamson was announced.

The day was observed throughout India as one of special intercession for the success of British arms in the war and for a speedy and successful conclusion of the conflict.

4th.—The Finance Department of the Government of India issued a communique detailing special steps decided upon by the Government of India to meet the extraordinary situation in the cotton market arising from the war.

6th.—The Hon. Mr W. H. Clark, Member of the Government of India in the Department of Commerce and Industry, met the Committee of the Bombay Chamber of Commerce and discussed with them various matters affecting mercantile interests, especially in regard to the war.

10th.—Mr M. K. Gandhi, the South African Indian leader and Mr. Gandhi returned to Bombay by the mail steamer from England.

Sir Arthur M. Mahon arrived in Cairo to take up his appointment as High Commissioner of Egypt.

11th.—The Arab tribes in Oman who had for over a year been threatening the capital of the Sultan at Mascot delivered their long expected attack. The fighting lasted from 2 a.m. till 1 p.m. when the enemy withdrew having lost 500 killed and wounded out of a force estimated to number 3,000. The rebel leader was reported wounded. British Indian troops, namely a portion of the 95th Russell's Infantry and the 102nd Grenadiers held the line of the defence and had one British officer wounded and six sepoy killed and fourteen wounded.

12th.—In the Imperial Legislative Council at Delhi, H. E. the Viceroy spoke for forty minutes and mentioned that 200,000 troops had been despatched, or were being despatched, from India to the front, still leaving the strength of the Indian frontier defences untouched. Lord Hardinge specially referred to the intri-

gues and pressure of Germany and Austria which had plunged Turkey into the war. A War Ordinance Bill to continue in force the provisions of certain ordinances during war time and for six months after its close was passed.

13th.—H. E. the Governor and Lady Willingdon gave a dinner party at Government House, Bombay to the members of the Municipal Corporation.

A report by Mr C. E. Mallet on the work of the Indian Students Department in England during 1914 was published in Delhi and described many interesting points in the life of Indian Students in the United Kingdom and the work done for them by the Department.

14th.—The Indian Science Congress which is comparable with the British Association for the Advancement of Science, opened a three-day session in Madras. There was a long list of papers.

21st.—H. H. The Aga Khan returned to India after an absence of almost a year.

23rd.—The announcement was made that Mr M. M. S. Gubbay, I.C.S., had, as an experimental measure, been attached to the Board of Trade in London for a few months on special duty as Indian Trade Commissioner.

24th.—H. E. the Viceroy arrived in Bombay on a short visit, one of his objects being an inspection of the Lady Hardinge War Hospital. H. H. the Nizam who was staying in Bombay paid a visit to the Viceroy at Government House. Lord Hardinge visited numerous places of interest in and about the city.

25th.—H. E. the Viceroy sailed from Bombay in H. M. S. Northbrook for the Persian Gulf.

30th.—The report of the Bengal District Administration Committee consisting of a volume of some 200 pages was published. It contained numerous detailed proposals for the improvement of the administration in Bengal districts and in the province as a whole.

30th.—Death announced of Lieut.-General Sir George Milman, who distinguished himself in numerous actions in the Crimean war and the Indian Mutiny.

31st.—Death announced of Rear Admiral the Hon. Victor Alexander Montagu, a Crimean and Indian Mutiny veteran.

H. E. the Viceroy arrived at Kowloon from Bombay and on the same and following days received visits from the Sherifs of Kowloon and Bahrain, investing the Ruler of Bahrain with the insignia of K.C.S.I. and Sheikh Abdulla Bin Isa with those of C.I.E.

FEBRUARY

1st.—A blue book dealing with the co-operative credit movement in India during 1914 was issued in Delhi. It showed that the total number of societies had risen during the year to 15,673 as against 12,324 in 1913, and that there were 326 central, 806 non-agricultural and

14,533 agricultural societies. It will be observed that the agricultural societies had during the course of the year increased by 3,156.

2nd.—Death announced of Major-General Sir Luke O'Connor, O.B., V.C., a Crimean and Indian Mutiny veteran, who rose from the ranks.

The Viceroy proceeded to Abadan at the mouth of the Shatt-el Arab where he visited the refineries of the Persian Oil Works.

3rd.—The Viceroy received the Sheikh of Mohammerrah in his steamer. His Excellency later arrived at Basra, where in reply to an address of welcome he gave the assurance that henceforth a more benign administration will bring back to Iraq that prosperity to which her rich potentialities gave her so clear a title. The Viceroy visited the British and Indian military hospitals ashore conversing with a large number of sick and wounded and in the afternoon was at home on board his steamer and in the evening gave a small dinner party.

4th.—The Hon. Sir Harcourt Butler, member of the Viceroy's Council for Education, visited the Islama College, Peashawar and opened the Rook Keppel Hall in the main building of the College. There was a large gathering of ironies and trans-frontier Maliks, Khans and tribesmen. Sir Harcourt Butler read a congratulatory telegram from H. E. the Viceroy and in a speech referred to the powerful influence which this college would spread in the country, and beyond the frontier and warmly eulogized the educational and other good work done by Sir George Rook Keppel as Commissioner in the North West Frontier Province.

5th.—H. E. the Viceroy landed at Basra and rode with an escort ten miles across the open desert to Bhalha, the advanced position of the British Expeditionary force. His Excellency was subsequently at home to the notables of Basra City and the Indian officers of the garrison and during the afternoon conferred the Kaiser's Hind medal upon Mr. Nao Abbe, first Arab Dragoman to the late Basra Consulate.

6th.—H. E. the Viceroy proceeded to the Shatt-el Arab to Kurma where he inspected the British position.

7th.—Lord Hardinge proceeded up to river Tigris in a launch to visit H. M. 9. Espiegle, two miles distant from the deck of which he obtained a clear view of the Turkish encampments. His Excellency visited the furthest outpost and inspected the main position at Kurma. His Excellency subsequently re-embarked in H. M. 9 Lawrence to return down the river.

8th.—H. E. the Governor of Bombay performed the ceremony of switching on the supply of electricity to Bombay from the Tata Hydro-Electric Works.

9th.—H. E. the Governor and Lady Willingdon arrived at Ahmedabad at the opening of a tour in Gujarat.

11th.—H. E. the Viceroy visited Mascot on his return from Basra, and exchanged formal visits with the Sultan. The Viceroy visited the British Consul and accorded private interviews to the French and American Consuls. His Excellency also inspected the troops who successfully repulsed the determined attack recently made by the rebel Arab tribes and congratulated them for their gallant behaviour.

14th.—H. E. the Viceroy arrived at Delhi on his return from the Gulf.

18th.—The death of the Hon. Mr. G. K. Gokhale occurred at Poona, after a protracted illness affecting his heart.

20th.—H. H. the Maharaja of Bikaner arrived in Bombay on his return from the front in Flanders.

23rd.—Imperial Legislative Council at Delhi. H. E. the Viceroy presiding. Lord Hardinge before the commencement of business, paid a warm tribute to the late Hon. Mr. G. K. Gokhale, saying: "we shall feel the void he has created, for one may truly say that it would be almost impossible to fill his place in Indian public life." The Hon. Sir G. M. Chittarava speaking on behalf of the Hon. Members of the Council, associated himself with His Excellency's remarks and expressed the members' profound sorrow at Mr. Gokhale's death. The Council then adjourned for the day.

The S.S. City of Mysore, an Ellerman liner commanded by Captain J. Perry, bound from Calcutta for London, was reported ashore on Komari Reef on the Ceylon coast. She had on board four passengers all of whom were taken off. The crew remained in the ship.

24th.—Imperial Legislative Council. The Hon. Mr. C. E. Low took the oath of allegiance. The Hon. Mr. H. H. Clark introduced the Patent Bill, a measure arising out of war conditions. The Hon. Mr. M. V. Das moved the following resolution:—This Council commends to the Governor-General in Council the communication to His Gracious Majesty the feelings of sincere gratitude, devotion and loyalty with which the humane population of India have been drawn towards the Throne by His Majesty's personal attention to Indian soldiers in the theatre of war and in hospitals and the consequent unwavering resolution of the Indians to support the honour, dignity and prestige of the Empire regardless of the sacrifice they may entail on them. Numerous Hon. Members spoke in support of the resolution which was adopted with slight amendments, and H. E. the Viceroy accepted it with great pleasure and announced that he would communicate it to H. M. the King. Emperor. The Hon. Raja Kusthal Pal Singh moved that in view of the cessation of imports from hostile countries the local Governments be consulted on the desirability of promoting industrial enterprises by loans on lines of takavi advances. After a long debate in which the Hon. Mr. Clark explained the position of Government, the resolution was converted into a form of recommendation in favour of Government continuing, in view of the conditions arising from the war to afford such assistance and co-operation as might be practicable in the promotion of industrial enterprise in India and was carried.

25th.—Mr. W. L. B. Souter (I.E.) was gazetted Inspector General of Police in the Bombay Presidency.

28th.—An informal preliminary meeting of the leading citizens of Bombay was held to consider what steps should be taken to commemorate the services rendered by the late Mr. G. K. Gokhale. The Hon. Mr. Chandra Bhai proposed the principal resolution, viz. that a requisition be forwarded to the Sheriff of Bombay to convene a public meeting in the Town Hall on the subject. This was agreed to and a large and influential committee was appointed.

The first official despatches regarding the fighting in the Persian Gulf war area were issued at Delhi.

MARCH.

2nd.—Imperial Legislative Council. The Hon. Sir William Meyer introduced the Budget estimates for the ensuing year. He gave an exhaustive review of the effects of the war in India and announced that there would be no increase in taxation.

The Bombay Municipal Corporation gave a dinner in the Municipal Council Hall in celebration of their jubilee. H. E. the Governor and Lady Willington were the principal guests.

4th.—H. E. the Viceroy opened the Sara Bridge inaugurating direct railway passenger communication across the Lower Ganges. The bridge was named the Hardinge Bridge. The Viceroy proceeded later to Calcutta and in the afternoon unveiled statues of Lord Ripon and Lord Minto upon the Maidan.

5th.—A public meeting was held in the Bombay Town Hall to pay a tribute to the late Hon. Mr. G. K. Gokhale. H. E. the Governor presided. H. H. the Aga Khan proposed a resolution recording the meeting's deep sense of loss by Mr. Gokhale's untimely death and its appreciation of his public work, and in the course of a long speech delivered a warm eulogy of the deceased leader. The Hon. Mr. Pherozeshah Mehta seconded the resolution in a speech broken with emotion. The Hon. Mr. Claude Hill and Sir Bhulchandra Krishna supported it and it was carried unanimously. A resolution of condolence with Mr. Gokhale's family was passed and it was decided to raise a suitable memorial or memorials and a committee was appointed to collect subscriptions and to take all necessary measures.

6th.—H. E. the Viceroy inspected the newly formed Calcutta Scottish Volunteer Corps. His Excellency presided as Chancellor at the Convocation of the Calcutta University announcing a grant of ten lakhs to the University by the Government of India.

8th.—Imperial Legislative Council at Delhi. The Hon. Sir William Meyer opened the first stage of the discussion on the financial statement. The Hon. Mr. Dadabhai moved that the allotment for railways be reduced by fifty lakhs and that the amount so freed be allotted to the Provincial Governments for the development of education and sanitation. After a lengthy debate the resolution was negatived. The Hon. Mr. Dadabhai moved that the Court of the Judicial Commissioner of the Central Provinces be replaced by a Chief Court consisting of five Judges or more. After considerable debate in which the Hon. Sir E. Cradock expressed sympathy with the resolution the Hon. Mr. Dadabhai withdrew his proposition.

9th.—Imperial Legislative Council. Budget debate continued.

10th.—It was officially reported that the Turkish Government authorities at Jeddah had seized a cargo of 30,000 sacks of barley destined for pilgrims to the holy places, thus upsetting the policy of the British Government under which special arrangements had been made for exempting food supplies sent to this port

from British measures for dealing with contraband.

13th.—Sir James Begg sailed for England on resigning from his position as Secretary and Treasurer of the Bank of Bombay.

Bombay Legislative Council Budget Meeting at the Secretariat, Bombay. H. E. the Governor presiding. The Hon. Sir Richard Lamb presented the Financial Statement, which showed that the war had affected provincial finances less than Imperial finances. The Financial Statement having been formally presented, the Council adjourned for the day out of respect for the late Mr. G. K. Gokhale.

Budget meetings of the Punjab United Provinces Central Provinces and Burma Legislative Councils.

The non-official members of the Bombay Legislative Council elected by 22 votes to 7 the Hon. Mr. Chundil Setalvad as their representative on the Imperial Legislative Council in place of the late Mr. G. K. Gokhale.

15th.—Bombay Legislative Council Budget debate. The Hon. Mr. Pataudi withdrew the Bill to consolidate and amend the law relating to the formal recognition of heirs, executors and administrators and the appointment of the Administrators of property by the Courts in the Bombay Presidency stating that the Bill as it emerged from Select Committee was very similar to the Succession Certificate Act of 1887 and was withdrawn on the opinion of the High Court and other officials. A Bill to authorize the levy of dues on vessels for the provision of lights on the coast of the province of Sind, was read a third time.

At a meeting of the Senate of the Calcutta University the following resolution which had been adopted by the Syndicate was presented for approval.—That the University of Calcutta views with the strongest abhorrence and condemnation all acts and practices during the present war having the effect of intensifying the cruelties and sufferings inseparable from a state of war and which are in violation of moral and international obligations and leading to the destruction of universities, libraries, museums, works of art and other aids to culture, progress and civilization. Consideration was postponed.

16th.—H. E. the Governor formally opened the Bombay Cities and Town Planning Exhibition at the Bombay Town Hall.

Bombay Legislative Council. The Bill to decentralize and otherwise to facilitate the administration of certain enactments in force in the Presidency of Bombay was passed through second and third readings. The Hon. Mr. Claude Hill introduced a bill to amend the Bombay Protection of Filigree Act. The Bill was read for the first time and referred to Select Committee. The Hon. Mr. V. J. Patel moved a resolution recommending consideration of the desirability of re-arranging the conditions of employment of the Official Engineer, Official Receiver and Official Liquidator. The motion was negatived.

The House of Lords adopted Lord Macdonnell's resolution advising His Majesty to withhold the Royal Assent, during the continuance of the war to the draft Proclamation creating an Executive Council for the United Provinces.

17th.—Imperial Legislative Council. Mr. B. W. Gillan and Mr. R. Graham took the oath of allegiance. The Hon. Mr. Clark introduced a Bill to amend the Indian Steam Vessels Act, 1884 the Assam Labour Bill and the Sea Customs Bill. The Foreigners Bill was passed. A resolution by the Hon. Mr. Rama Rayanagar recommending steps to make the vernaculars the media of instruction and the study of English the secondary language compulsory for Indian pupils in secondary schools resulted in a lengthy debate after which the resolution was withdrawn. The Hon. Rai Sita Nath Roy moved a resolution in favour of direct Government help to the Indian sugar industry but after a short debate the resolution was negatived.

19th.—Imperial Legislative Council. H. E. the Viceroy who presided read a telegram from H. M. the King-Emperor stating that he had received the Council's loyal resolution with great satisfaction. The Viceroy also read messages from Field Marshal Sir John French and General Sir F. Willoughby appreciative of the behaviour of the Indian troops in the field. The Hon. Sir R. Craddock introduced the Public Safety and Defence Bill which was favourably received by the Council and passed through all its stages into law.

22nd.—Imperial Legislative Council. Dr. Sunder Lal and Mr. C. H. S. Talwar were sworn

in as members. The Hon. Sir William Meyer presented the revised Budget, and introduced the Indian Paper Currency Bill. The latter was passed into law. The Hon. Sir Harcourt Butler introduced the Hindu University Bill. The Hon. Dr. Sunder Lal expressed the thanks of the promoters of the University to H. E. the Viceroy and Sir Harcourt Butler for all the encouragement they had given and other non-official members joined in a chorus of congratulation. The Indian Patents and Designs Bill and the Delhi Laws Amendment Bill were passed. A long discussion took place on the Government's wheat export policy.

24th.—Imperial Legislative Council. The Assam Labour Bill was passed. The Hon. Sir Ibrahim Rahimtulla moved a resolution inviting Government to consider the desirability of the future policy in regard to State Railways being one of management by Government instead of by managing companies. Government accepted the resolution which was carried after a long debate.

25th.—Imperial Legislative Council. Budget discussion. The non-official members of the Council gave their annual Imperial Council dinner at Delhi. There was a distinguished company of guests. The only toasts were—the King, Emperor and the Imperial forces at the front and His Excellency the Commander in Chief responded for the latter.

11th.—H. F. the Viceroy in the course of a visit to Cawnpore attended the State banquet given in his honour by H. H. the Maharaja

APRIL

5th.—The Hon. Mr. Claude Hill was entertained at a farewell dinner at the Taj Mahal Hotel Bombay given in his honour by Sirdar Said Sultan Khan, Asam Vice-President of the Bombay Branch of the All India Muslim League on Mr. Hill's appointment to H. F. the Viceroy's Council.

7th.—The Hon. Mr. W. H. Clark, Member of the Viceroy's Executive Council for Commerce and Industry met the Bengal Chamber of Commerce in Calcutta.

8th.—Mr. Pheroze C. Setlana was elected President of the Bombay Municipal Corporation.

11th.—The Hon. Sir Wm. Meyer, Finance Member of the Government of India, the Hon. Mr. W. H. Clark, Member of Commerce and Industry and the Hon. Mr. C. E. Low, Secretary for Commerce and Industry met the general committee and the finance sub-committee of the Bombay Chamber of Commerce for the purpose of informally discussing various questions of commercial importance.

12th.—H. E. the Governor of Madras laid

the foundation-stone of the Boddam Muslim High College Town to be erected under the auspices of the Mahomedan Educational Association of Southern India.

13th.—A large crowd moving down the sloping approach road at the Barki fair pool at the Hardwar Meils got out of control and twenty-two people fell and were trampled to death. Of those killed thirteen were men and nine women.

14th.—Authoritative detailed reports were published in Rangoon of recent Kachin trouble in the extreme north of Burma caused by the Sana and Lapha Kachins becoming turbulent last December and of the successful settlement of the trouble by a punitive expedition.

23rd.—Annual meeting of the Bombay Mill Owners' Association.

25th.—A great combined naval and military attack by the British forces assisted by the French upon the Dardanelles commenced, the armies under General Sir Ian Hamilton's command being landed successfully at dawn under cover of the fire of the fleet.

MAY

1st.—The Government of India issued a resolution defining their policy in relation to local self-government taking the general view that further development was desirable under such conditions as the local Governments and administrations might consider advisable in their respective areas progress to be on the lines laid down by the Royal Decentralization Commission. Measures to expand the electoral element and otherwise enlarge the scope and resources of the local bodies which had already been prepared by the local governments were explained.

The *Times of India* reduced its price from four annas to one anna and announced that as a result of the notice a fortnight previously that the change was about to be made the circulation of the paper had already increased by four hundred per cent. No alteration was made in the size or policy or style or contents of the paper.

5th.—The Municipal Commissioner of Bombay presented a report to the Corporation in which he pointed out that among twenty great cities Bombay stood sixth in point of mortality from tuberculosis and he recommended the Corporation to provide a ward of fifty beds in the King Edward Memorial Hospital and that the balance of half a lakh from the Royal Visit Fund should go towards meeting the expense. The Corporation referred the matter to their Medical Committee.

10th.—The European Association in Calcutta addressed a long letter to the Government of India urging the compulsory military training in India of all British subjects from Europe and the Colonies.

13th.—It was officially announced that General Sir Louis Botha had entered Windhoek, the capital of German South West Africa and hoisted the British flag there. More than four thousand Europeans were found in the town. A quantity of rolling stock was taken.

17th.—The people of Bengal having lifted up a hospital flag, or barge for use in connection with the operations in Mesopotamia the barge was despatched from Calcutta to be towed to Bombay for final equipment there, and she founded on this day in the Bay of Bengal during bad weather. The crew were rescued by the towing steamer.

19th.—Mr Asquith in the House of Commons announced steps to reconstruct the Cabinet on a broader personal and political basis.

22nd.—The Bombay Chamber of Commerce addressed the Government of Bombay on the subject of volunteering and military training in India and suggested that Government should at the earliest possible moment hold a full inquiry into the present condition of the auxiliary military forces in India with a view to taking such steps as might be necessary to increase their numbers and to advance their efficiency.

The Italian Senate passed by 202 votes to 2 a Bill granting the Government extraordinary powers in view of the political situation.

23rd.—The Italian Government announced the mobilization of the Italian army and declared the state of war to exist in their northern provinces.

24th.—The Bombay Hindus met in a joint meeting to celebrate Empire Day and speeches of profound loyalty and of enthusiastic support to Government during the continuance of the war were made.

Italy declared war on Austria.

25th.—The personnel of the new Cabinet announced in London was shown to include the appointment of Mr Austen Chamberlain to be Secretary of State for India with Lord Islington as Under Secretary.

29th.—Two Indian Officers of the 23rd Sikh Pioneers, namely Subedar Major Balwant Singh Bahadur and Subedar Pritham Singh stationed with their regiment at Aden were murdered by a sepooy.

31st.—The Government of India announced an important advance up the Tigris river by the British Expeditionary Force in close co-operation with the navy. The force captured three 16-pounder guns complete with ammunition, and 241 prisoners, the enemy being driven in full retreat up the river.

The death was announced of Sir Charles Crosswaite, a former member of the Indian Civil Service. He first came to India in the early forties of the last century and was Chief Commissioner of British Burma during an important development in the history of that country.

JUNE

3rd.—General Townshend, accompanied by Capt. Nunn, R.N. and Sir Percy Cox, with a small gunboat flotilla, received the surrender of the Governor of Amara in Mesopotamia. The troops captured in the phase of operations just concluded comprised about 80 officers, 2,000 men, 7 field guns, 6 naval guns, 15 large steel barges and various other river craft and a considerable number of rifles and ammunition.

H.M. the King Emperor completed his fifteenth year. At His Majesty's request the day was not celebrated with the usual festivities owing to the war but it was generally observed in India as a whole or partial holiday, and numerous loyal gatherings in honour of the occasion took place.

The Birthday Honours list included 8 K.C.R.I., 12 C.I., 2 G.O.L.E. & K.C.I.E., 24 C.I.E.,

8 Knighthoods and some 50 I.S.O. and Kaiser I Hind Medals. The recipients of K. C. I. E. included the Hon. Mr. P. D. Pattani, Member of the Executive Council of H. E. the Governor of Bombay, and the recipients of the Gold Medal of the Kaiser I Hind included Lady Willingdon, Lady Carlyle and Lady Lukie.

The Hon. Mr. Montagu presided at a dinner in London in honour of Sir Krishna Gupta on the completion of his term of office on the India Council.

The Secretary of State for India announced the appointment of Sir C. A. White, late Chief Justice of the Madras High Court to be member of the Council of India.

4th.—General Nixon, commanding the Expeditionary Force at Mesopotamia, reported the surrender on the previous day of the Governor of Amara, on the Tigris, with some 30 officers and about 700 soldiers.

5th.—Ceylon was placed under martial law in consequence of violent widespread disturbances attended by fatalities and grave injuries to people and property between Sinhalese and Moormen. Shipping at Colombo was brought to a standstill and the Colombo tram service suspended and the government railway service curtailed.

6th.—There reached India a vivid account by an official eye-witness of the great battle of Neuve Chapelle giving the first connected account of the work of the Indian regiments.

10th.—News was received in Bombay by cable from London of the death of Mr. A. Craigie, late senior partner in the firm of Craigie Blunt and Caroe, solicitors of Bombay.

11th.—The English mail for India left London by the route Folkestone, Boulogne and Marseilles thus marking the resumption of an overland route for the Anglo-Indian mail service in both eastward and westward directions.

12th.—The Government of India published their annual review on irrigation which showed that twenty five million acres were being irrigated and that eighty one crores worth of crops were in the past year raised on the area thus made fertile.

13th.—An official announcement by the Secretary of State for India was issued in India

stating that although in normal circumstances Lord Hardinge of Penshurst's term of office as Viceroy and Governor-General of India would terminate in November, His Majesty's government had requested him to remain until the end of March next and that Lord Hardinge had complied with their wishes and H. M. the King Emperor been pleased to approve the arrangement. The announcement was accompanied by a brief note by Lord Hardinge who said that it was with no light heart that he had agreed to this prolongation of his onerous responsibilities but that the feeling that I have the friendly confidence of so many gives me courage to continue to fulfil my duties to the best of my ability and for the welfare of India and her people.

15th.—The first heavy rain of the monsoon broke in Bombay.

20th.—The P & O steamer Nubia grounded on the sand bar at the mouth of the Kelani river, Ceylon during high monsoon seas at 5 o'clock in the morning. The passengers were safely taken off and a quantity of cargo was thrown overboard in order to lighten the ship. Efforts to save the vessel continued during several days but were unsuccessful.

24th.—It was announced that Sir Edward Galt had been appointed Lieut. Governor of Bihar and Orissa.

30th.—It was announced that in response to a request by the Imperial Government, the Government of India had undertaken to supply munitions of war for use in Europe and that for this purpose a new Department had been created for the period of the war with Mr. Bayley, hitherto Assistant Secretary to the Railway Board (Stores Department), as its head.

The Hon. Sir William Clark, Member for Commerce and Industry met the Bombay Chamber of Commerce and in the course of a long discussion of the Government's wheat control policy explained that the matter had an Imperial as well as Indian aspect and that the details of the policy adopted were fixed by the Home authorities.

The report of the Joint Select Committee of Parliament upon the Indian Consolidation Bill was issued. It proposed certain amendments of a minor character.

JULY

5th.—The report was issued of the committee appointed in July 1914, to frame a scheme for a University of the teaching type in Nagpur or in its neighbourhood, and for the affiliation to it of colleges situated in other parts of the Central Provinces and Berar. The University which the committee proposed would possess powers entitling it to a high place in the administrative machinery of the Provinces. Administrative autonomy involved a certain measure of financial independence and the committee framed proposals accordingly. The committee recommended that the University should contain at its inception Faculties of

Arts, Law and Science and a department for the training of teachers subordinate to the Faculty of Arts.

The operations proceeding up the Euphrates river resulted in the Turks being driven out of their main position at Suk-el-Shuykh, with heavy loss and the surrender of a battery.

6th.—H. E. the Governor of Bengal laid the foundation stone of the new building of the University Institute in Calcutta which was started twenty years ago for giving moral training to young men.

The death announced of Sir Theodore Hope, formerly of the Bombay Civil Service.

8th.—It was announced that His Majesty the King-Emporer had approved of the appointment of Mr George Rivers Lowndes barrister-at-law as Law Member of His Excellency the Viceroy's Executive Council in succession to the Hon. Sir Syed Ali Imam, K.C.S.I.

9th.—It was officially announced in Pretoria that General Botha had accepted the surrender of the entire German forces in South West Africa, and that hostilities had ceased. The Germans surrendered unconditionally.

10th.—The sixteenth Session of the Bombay Provincial Conference were opened at Poona. H. E. the Governor was present and made a speech on the resolution expressing loyalty to the Throne and unshakable allegiance to the British connection with India and declaring the determination of India to stand by the Empire at all hazards in the struggle in which the Empire was engaged. The delegates numbering over 2,000 people gave His Excellency who was accompanied by Lady Willington an ovation.

15th.—Bombay Legislative Council revised Budget presented and discussed.

An outrage occurred in the vicinity of Basadre, when Major Oliphant 98th Regiment and Capt. Baskin, Assistant Political Officer while out with a patrol reconnoitring were ambushed and fired at from close quarters both the British officers and one sepoy being killed and two others of the party wounded.

18th.—Bombay Legislative Council The Hon. Mr. Motilal Basundhri Ahmed moved a resolution expressing gratitude to H. M. the King-Emporer for extending Lord Hardinge a term of office as Viceroy, and grateful thanks to Lord Hardinge for his cheerful response in accepting a further term of office. The resolution was carried unanimously.—The Bill to amend the Bombay Protection of Pilgrims Act, 1887 was passed through second and third readings.—The Hon. Sir P. D. Pattani moved the first reading of a Bill to amend the Bombay Municipal Act of 1888, and the Bill was read the first time and referred to a Select Committee.—The Hon. Mr. W. D. Sheppard introduced a Bill further to amend the Bombay Medical Act of 1888, and this was read the first time and referred to a Select Committee.—The Bill to provide for a Survey of the Town and Island of Bombay was read the second and third times and passed into law.

Sultan Sir Ali bin Ahmed bin Ali, K.C.I.E., Sultan of Alibab (Lahe), was fatally wounded during an attack on his capital by a joint force of Turks and Arabs. He was brought into Aden and there underwent a serious operation but succumbed soon after.

14th.—The Hon. Captain W. L. Graham A.D.C., of the Indian Army Reserve of Officers fell through an open hatchway into an empty coal bunker on board the hospital ship Madras, in Bombay docks and died from his injuries. Capt. Graham had been serving on the Embarkation Staff in Bombay since the war broke out and was engaged in his duties when the accident occurred. He was head of the firm of Messrs W & A. Graham & Co. in Bombay.

Bombay Legislative Council The Hon. Dewan Bahadur K. G. Godbole moved a resolution favouring special financial assistance from the Government of India for the construction by private enterprise of railways in the Konkan Kanara and the Western Ghat districts of the Bombay Presidency but after considerable discussion the resolution was withdrawn.—The Hon. Mr. V. J. Patel moved a resolution in favour of the extension of the elective principle in the appointment of members to taluka and district local boards. The Hon. Sir P. D. Pattani announced on behalf of Government that H. E. the Governor's Council had already for some time been considering this question and were prepared to accept the resolution with slight amendments. The amended resolution was carried. Considerable further discussion on the subject of local government followed. The meeting concluded with expressions of appreciation of the Hon. Sir Richard Lamb, about to retire.

17th.—The Government of India issued, in a press communique a letter from General Sir Ian Hamilton Commander-in-Chief in the Gallipoli Peninsula, to H. E. the Viceroy giving an account of brave fighting by the 14th Sikhs and warmly praising the valour of the Indian troops in general.

21st.—The death occurred of the Hon. Mr. Fazulbhoy Chinoy, C.I.E. of Bombay.

A force from the Aden Garrison attacked the position taken up by the Turks in their recent raid a few miles outside the settlement and drove them from it the pursuit being continued for a distance of five miles.

24th.—The advanced and main positions of the Turks at Nauriyeh on the Euphrates river an important place in the Basra vilayet were successively stormed and taken and all the Turkish artillery and several hundred prisoners were captured. The Turkish losses in killed of whom 500 were left on the field, and wounded were heavy amounting to approximately 3,500.

27th.—H. E. the Governor of Bombay announced that Sir Samuel David Bart. and Sir Shapurji Broacha had generously offered to furnish on behalf of the City of Bombay two fully equipped military aeroplanes to form part of the Overseas Aircraft Flotilla.

AUGUST

4th.—Anniversary of the entry of England into the war. Services of Intercession were held in the places of worship of all communities throughout the Indian Empire and a large number of public meetings were held at which the following resolution was passed.—That

on this Anniversary of the declaration of righteous war this meeting of citizens records its inflexible determination to continue to a victorious end the struggle in the maintenance of those ideals of liberty and justice which are the common and sacred cause of the Allies, this

resolution being similar to that adopted by public meetings in all parts of the British Empire

6th.—The Senate of the Bombay University decided to bestow degrees of LL.D upon Mr Dadabhai Naoroji and the Hon Sir Pheroza Shah M Mehta in recognition of their public services

8th.—Mr Richard Lamb K.C.B. C.I.E. L.C.S. called for England on retiring from the Executive Council of H. E the Governor of Bombay and from public service in India

13th.—Government of India issued a communique with regard to their action concerning German and Austrian subjects in India since the beginning of the war explaining that leniency was shown at the commencement of the hostilities but that sterner measures had been taken in view of the methods of savagery adopted by Germany

15th.—The Government of India published despatches from General Nixon commanding in Mesopotamia and Maj General C. I. Fry and Maj General C. J. Molles regarding the fighting at Shajha on April 12th 13th and 14th.

17th.—H. E the Governor presided as Chancellor at the annual Convocation of Bombay University, and delivered a noteworthy address, in which he dealt specially with the moral issues at stake in the war showing how they must profoundly affect the responsibilities of all public institutions, and particularly of a university which was the custodian of the best traditions of human thought and conduct

The lists for the Government of India 4½ crore 4 per cent. terminable loan were closed and it was announced that subscriptions amounted to Rs. 663 lakhs, exclusive of applications from smaller centres from which reports had not yet arrived and subscriptions of small amounts to the Post Office

A patrol from the Rawlani front on the North West Frontier reported hostile bodies of Honorwads occupying low hills at the mouth of the

Ambela pass and in the afternoon large bodies of these tribesmen estimated at about four thousand, with many standards advanced to wards the vicinity of the British Camp. An artillery and infantry attack was made upon them, and the enemy was completely routed and driven back to the hills

20th.—H. E the Governor of Bombay and Lady Willington met in the Bombay Municipal Hall a number of leading citizens of Bombay official and non-official, who presented separate portraits of their Excellencies, painted by a well known artist together with a suitable address expressing the admiration and respect of the subscribers specially on account of the fine example of courage which their Excellencies had set to all classes of Bombay since the outbreak of war and their unflinching devotion to duty at a time of anxiety and peril.

21st.—A large anniversary meeting of the Women's Branch of the Bombay War and Relief Fund took place in Bombay Town Hall, when Lord Willington who presided, gave a comprehensive account of what had been accomplished and a strong appeal was made to all classes to continue the good work

30th.—A large public meeting of Calcutta residents was held at Calcutta to concert measures for raising a permanent memorial to commemorate the services rendered by Sir Lawrence Jenkins retiring Chief Justice of Bengal Babu Pearu Mohun Mukerjee presided. A committee was appointed to raise funds and a resolution eulogizing Sir Lawrence Jenkins' work was passed on the initiative of Sir Rash Bihari Ghosh, seconded by Sir S. P. Sinha and supported by Mr Surendra Nath Banerjee

Report were issued of successful counter-attacks on the 26th, 28th and 29th on the Buner border on the North West Frontier during which various attacks by large forces of Swabs were beaten off with heavy loss to the enemy and the tribesmen were driven out of Kak fort which was destroyed

SEPTEMBER.

1st.—Heavy floods in Lucknow township and elsewhere in the United Provinces following upon unusually heavy rain and causing great damage to property and rendering thousands of people homeless.

2nd.—Sixteen Sowars, one lance-duffadar and one duffadar of the 33rd Cavalry (Frontier Force) stationed at Dagbhal, having been found guilty as regards seventeen, of conspiring to cause a mutiny in their regiment and, as regards the other of failing to give information of the conspiracy although he knew of it, twelve were executed at Amballa, the sentences of death on five of the sowars having been commuted by H. E the Commander-in-Chief to transportation for life and that on the last accused, who was sentenced to transportation for life to transportation for ten years.

5th.—A catchment of Mohmand Lashkars numbering about 10,000 men being reported from the lower Gandak Valley. Maj General Campbell moved out with the First Division of the Frontier Force to attack their position near Hahs Kor and drove off the enemy, after inflicting heavy losses on them.

6th.—The annual quadrangular cricket tournament between English, Parsi, Hindu and Mahomedan eleven opened at Poona.

8th.—Imperial Legislative Council at Simla, H. E. the Viceroy presiding. The following new additional members took the oath of allegiance: Khan Bahadur Mirza Muhammad Shah, Messrs Grant, Hackett, Stewart, Bell, Harrison and Miss The Hindu University Bill was introduced by the Hon Sir H. Butler and referred to Select Committee

12th.—The ss *Luphrate* went ashore in the night at Sokotra during a voyage from Saigon to Marseilles and five hundred and eighty five passengers were rescued by the steamer *City of Nagpur* and taken to Colombo.

14th.—The Special Tribunal in the Lahore Conspiracy Case pronounced judgment showing that in May 1913 Indians forming inflammable material in America were stirred into a state of hostility towards the British Government, with the result that there was a conspiracy for an insurrection in India. The conspiracy and preparation finally developed at the end of July and beginning of August 1914. A very large number of men set out from America en route to India in three ships, these men being reinforced at various places in the Far East. In August a series of acts such as dacoities, seduction of troops, villagers and students, the manufacture and collection of arms and bombs were accomplished, as well as attacks on railways, bridges, forts, arsenals and general communications and a general rising was projected. Sentences were passed on the accused including Bhag Parmansand, M.A. late Professor of History at the D. A. V. College Lahore who was convicted of abetment of waging war and sentenced to death.

15th.—The Quadrangular Cricket tournament at Poona concluded in a win for the English XI who having previously beaten the Mahomedans now beat the Hindus who had defeated the Parsis.

A fire broke out in Bombay in the Asia Petroleum Company's yard as the result of the exploding of a large kerosene oil tank. Approximately 500 tons of oil were burnt and a similar quantity was saved from the burning tank by being pumped into another reservoir. No explanation of the fire was forthcoming, but the company were satisfied that it was not the result of incendiarism.

17th.—A farewell dinner was given to Sir Ali Imam retiring Law Member of the Viceroy's Council by the Indian residents of Simla. Over one hundred covers were laid, the guests including members of the Legislative and Executive Councils and other distinguished gentlemen. Sir Ali Imam made an interesting speech reviewing his period of office.

20th.—The Indian Railway Conference Association met at Simla. Colonel C. H. Cowie presiding.

22nd.—Imperial Legislative Council at Simla. H. E. the Viceroy presiding. The Select Committee's reports upon the Indian Steam Vessels Bill and the Hindu University Bill were presented. The Hon. Sir Wm. Clark introduced the Indian Ports Act Amendment Bill. The Hon. Sir Pandey Laloo introduced the Medical Practitioners Bill. The Hon. Sir Wm. Clark introduced a Bill to provide facilities for the payment to a public authority of certain monies, the payment of which was or might be prohibited owing to the present war, and to provide for other

matters in connection with trading with foreigners. The Hon. Mr. Muhammad Shadi proposed a resolution recommending a representation to the Secretary of State urging that India should in future be officially represented at the Imperial Conference. A number of speeches were made and an important announcement was made by the Viceroy accepting the resolution which was carried unanimously.

23rd.—Mr. Haji Suleman Abdul Wahed was elected Additional Member of the Bombay Legislative Council in place of the Hon. Mr. T. M. Chitoy deceased.

25th.—The Punjab Legislative Council met at Simla and H. E. the Lieut. Governor made an important speech reviewing the recent political disturbances in the Punjab and paying a tribute to the loyal behaviour of the mass of the people.

H. E. the Governor of Bombay and Lady Willington gave a farewell dinner at Government House, Ganeshkhind, to the Hon. Sir P. D. Pattani on the latter's retirement from his post as Member of the Executive Council on the return from England of the Hon. Mr. M. B. Chaudh. His Excellency made a speech warmly appreciating Sir Prabhushanker's public services, and Lady Willington handed a present to Lady Prabhushanker. Sir P. D. Pattani in responding spoke warmly of the friendship with which he had been surrounded in his work in the Governor's Council.

26th.—Annual meeting of the Indian Merchant Chamber and Bureau Bombay. The Hon. Sir Ganeshbhai Gorrinbhoj who presided and the Hon. Mr. Manmohandas Ramji, both spoke at length regarding Japanese competition in capturing the trade formerly done in India by Austria and Germany and emphasised the importance of Government specially helping Indian enterprise in the matter.

Death of H. H. The Raja of Kaplpha at Poona.

28th.—Pandit Madan Mohan Malaviya in the presence of a large and appreciative gathering, unveiled in the Council Chamber of Viceroy's Lodge at Simla a portrait of Lord Hardinge presented by the Maharajah of Kashmir. Speeches warmly eulogising the Viceroy were made by the Maharajah and the Pandit.

General Sir John Nixon reported that the British forces on the river Tigris attacked on this day the Turkish position at Sind, seven miles east of Kut-el-Amara, and were completely successful, several hundred persons being taken together with many guns and rifles and much ammunition while in dead the enemy lost severely.

29th.—A farewell address was presented to H. E. the Viceroy at Simla, on behalf of the Indian community of Simla, by Sir Harman Singh, who headed the deputation of Indian residents.

OCTOBER

1st.—Viceroy's Legislative Council at Simla, H.E. the Viceroy presiding. The Hindu University Bill was passed into law. H.E. the Viceroy reviewed at length the situation in regard to the war and explained the programme of business before the Legislative Council for the ensuing winter session.

Motor Postal Service introduced into Bombay

2nd.—Death at Simla of Sir Arthur Ker Ke

4th.—H.E. the Governor of Bombay attended the annual reunion of the students of the Deccan College at Poona and made an encouraging speech.

5th.—A large and representative public meeting was held at Ahmedabad under the presidency of Mr. Painter, Collector to consider what steps should be taken to relieve distress both of human beings and cattle in view of the failure of the rains.

6th.—Farewell dinner at Viceroyal Lodge Simla to the Hon. Sir Harcourt Butler on his departure for Rangoon to take up the Lieutenant-Governorship of Burma.

8th.—H.H. the Rajah of Rudian in a letter to the *Times* of India warmly advocated that the Indian Princes and people should subscribe to present a Dreadnought to the Imperial Government in recognition of the inestimable services rendered by the Imperial Navy to the Empire during the war.

The annual administration report of Indian railways was issued. It showed that during the year the net return on capital invested in railways was 5.93 per cent compared with 6.19 per cent in 1913-14. The capital expenditure by Government available for new construction having been curtailed by the exigencies of the war the mileage of new rail way completed by companies upon concession and rebate terms exceeded for the first time the mileage of railways financed by any other method and of the total mileage of 237 financed under these terms 220 miles were constructed with money raised in India.

H.F. the Viceroy was entertained at a farewell dinner at the United Service Club Simla and in responding to the toast of his health paid a warm tribute to the whole of British officials in the country and spoke in generous terms of India as a true friend of the Empire and not merely as a trusted dependent.

9th.—A gang of Bengalee youths entered the house of the Deputy Superintendent of Police at Mysore and murdered the Deputy Superintendent and his son the former having taken up his duties in Mysore recently as August and having formerly been attached to the Intelligence Branch at Calcutta.

13th.—A Press communique issued in Simla detailed the plan adopted by Government for the special distribution to ex-soldiers of land commanded by the Triple Canal Irrigation Project in the Punjab.

14th.—Farewell address presented to H.E. the Viceroy at Simla by the Simla Municipality.

15th.—The Hon. Sir William Meyer met the Karachi Chamber of Commerce and discussed with them the Government of India policy in regard to wheat and rupee loans.

18th.—The Bombay Municipal Corporation received an offer from the trustees of the late Mr. Gordhandas Sunderdas of twelve lakhs of rupees for the foundation of a Medical College attached to the King Edward Hospital and affiliated to the Bombay University. The Corporation referred the matter to their Medical Relief Committee.

19th.—The annual report of the Posts and Telegraphs in India was published. It showed that during the past year a thousand million articles were despatched by post, including twenty four million registered articles while stamps to the value of nearly two million sterling were sold for postal purposes and thirty million money orders of the total value of thirty seven million pounds sterling were issued and a sum of eight million pounds sterling was collected for tradesmen and others on value payable articles. Three million insured articles valued at forty nine million pounds, seven hundred twenty one thousand pounds of quinine were sold through the Post Office to the public while at the close of the year there were over one and a half million savings bank accounts with a total balance of ten million pounds and twenty five thousand postal life insurance policies with an aggregate assurance of over two million pounds sterling.

The Indian Civil Service (Temporary Provision) Bill was introduced in the House of Lords by the Imperial Government in order to provide for the recruitment of the Indian Civil Service amid the special difficulties created by the war.

22nd.—An anarchical outrage was committed in Calcutta the victims being two Criminal Investigation Department officers. Inspector Girindra Nath Bannerjee and Sub-Inspector Upendra Nath Chatterjee. In the evening they went to 99 Musjid Bazaar Street, the residence of another CID officer. At about 10.30 p.m. several strangers suddenly rushed into the room and fired at Girindra who reeled back and fell dying almost immediately. They then chased the others, hitting Upendra in the back. The murderers escaped, but arrests were made later.

23rd.—The death of Sir Henry J. S. Cotton K.C.S.I. was announced.

Major General Sir Parbat Singh, The Regent of Jodhpore returned to Bombay from the front in France and proceeded to Jodhpore.

25th.—Sir Harcourt Butler was given a public reception in Rangoon on arriving there to assume office as Lieutenant-Governor of Burma.

27th.—British and Indian troops at Chak darrah on the North West Frontier moved north-west into the Admral tract and engaged a force of 2,000 to 3,000 Bajouris who had entered the tract with a view to stirring up trouble amongst the tribesmen of Dir and Upper Swat. The enemy was heavily shelled and driven off.

29th.—The House of Lords finally passed the Indian Civil Service (Temporary Provisions Bill).

While H. M. the King Emperor was inspecting the army in France his horse became excited by the cheers of the troops and reared and fell, and His Majesty was severely bruised and had to be taken to his bed though no complications in his condition arose.

29th.—The Secretary of State for India notified that it was not proposed to hold in 1916 the usual examination for entrance to Indian Police Service. It stated to be impossible at present to give any information as to the future recruitment.

NOVEMBER.

1st.—A Conference of Electrical Engineers and Inspectors in the service of Government was opened in Calcutta. Mr. J. W. Moore, Electrical Adviser to the Government of India presiding.

8rd.—The death was announced of Sir Robert Laithlaw a founder of the firm of Whiteway Laithlaw & Co. and donor of many benefactions for educational and philanthropic work in India.

4th.—The Second Aryan Brotherhood Conference was opened in Bombay. Sir Narayan Chandavarkar presiding at the opening meeting as Chairman of the Reception Committee while a presidential address was delivered by Sir K. G. Bhambardkar who occupied the chair for the rest of the Conference.

5th.—The death occurred of the Hon. Sir Pherozshah M. Mehta at his residence in Bombay.

A Press communiqué issued in Simla gave a review of the receipts and disbursements of the Imperial Indian War Relief Fund since the last full report on the subject in February. An outline of the many activities of the Fund was given and the report showed the heavy expense entailed by this work and warmly appealed for continued financial support.

6th.—The funeral of the late Hon. Sir Pherozshah Mehta was the scene of a remarkable demonstration of sorrow at his death by several thousand representatives of all communities in Bombay, who lined the route from Sir Pherozshah's house to the gates leading to the Towers of Silence. H. F. the Governor was officially represented in the funeral procession and outside the Towers of Silence Sir N. C. Chandavarkar addressed a funeral oration to a large gathering of people to whom he drew the lesson of Sir Pherozshah's life urging them to emulate his example of public service to the Empire at large to India and to their own city of Bombay. Expressions of regret at the death of Sir Pherozshah poured in from all parts of the Bombay Presidency and from many large centres elsewhere in India, and on various dates appreciative reference to his public life and expressions of sorrow at his death were made in the Bombay High Court, the Bombay Municipal Corporation, the University Senate and elsewhere.

The death of Major-General Henry Holland a Indian Mutiny veteran, was announced.

10th.—An ordinance was gazetted by the Government of India empowering them to requisition all factories and workshops in India for war purposes and to regulate the sailings of British steamers from Indian ports and reserves in them all or any accommodation for the carriage of persons, animals or goods.

11th.—H. R. the Governor of Bombay and Lady Willingdon arrived at Belgium from Mahabaleswar at the opening of a tour by special train and motor car in the Southern Mahratta country.

12th.—Death announced of General Sir J. Burnett, K. C. B. K. C. V. O. who held various important commands in India and was G. O. C. at Poona from 1899 to 1903.

14th.—H. H. the Raj Sahib of Vankar a Rajput Chief of Kathiawar sailed from Bombay for the front.

16th.—H. E. the Viceroy gave a farewell dinner at Delhi to the Hon. Sir Ali Imam retired Law Member of the Viceroy's Council.

17th.—The Central Provinces and Berar Provincial Conference met at Nagpur.

H. F. the Governor of Bombay and Lady Willingdon after touring through the Southern Mahratta country and visiting the Gaerwappa Falls as guests of H. H. the Maharaja of Mysore arrived at Marmugan and paid a visit to Nova Goa, where they were officially entertained by H. E. the Governor General of Portuguese India.

18th.—The Ceylon Legislative Council formally voted a gift of £1,000,000 sterling to the Motherland in ten annual payments of £100,000 each.

20th.—An appeal was published in Lahore for funds for a war fleet, consisting of armoured aeroplanes named after the five rivers of the Punjab the Sutlej, Ravi, Beas, Chenab and Jhelum and if funds permit, of others named after the Indus and Jamuna. The fleet will be a present from the Punjab and residents in the North West Frontier and Delhi Provinces.

Dr. J. C. Bose gave a lecture before a large audience in Calcutta, describing the history of the steps by which he came to make his recent scientific discoveries.

21st.—The P. & O. mail steamer Balsetta grounded on a spit of sand on the African shore.

In the Gulf of Suez at 8-30 p.m. She remained there till the next afternoon when she was towed off unhurt, by three warships which arrived from Suez in response to the wireless call.

23rd.—H. E. the Governor of Bombay and Lady Willington returned to Bombay after their tour which they concluded by visits to numerous coast towns of the Bombay Presidency from Karwar to Bombay.

24th.—H. E. the Viceroy during a visit to H. H. the Maharajah of Bikaner unveiled a

memorial statue of the late Maharaj Shri Lal Singhji the Maharajah's father.

25th.—Mr. Dhanraj Eduljee Wacha was gazetted a member of the Bombay Legislative Council as the elected representative of the Bombay Municipality in succession to the late Hon. Sir Pherozshah Mehta.

26th.—The P & O S. N. Company's annual report showed a profit balance of half a million sterling and reported the loss of the Nile, Yubia and India, the cost of the last named falling upon Government as she had been requisitioned.

DECEMBER.

1st.—Sir John Anderson (under Secretary of State for the Colonies since 1911) was appointed Governor of Ceylon, in succession to Sir Robert Chalmers recalled Home for special work on account of his financial experience.

4th.—An enemy submarine sank the s.s. Coleman which steamer had on board a large and important consignment of new machinery purchased by the Bombay Municipality in connection with the extension of their Sewage Outfall Works. The machinery chiefly consisted of a patent travelling stage about 47 feet square with motors and cranes which was required for laying the extension of the sewage main in deep water.

A meeting of over ten thousand Mahomedans took place in Bombay and passed a resolution in favour of the postponement of the session of the All India Modern League which the Council of the League had summoned during Christmas week.

5th.—H. H. the Jam Sahib of Navanagar arrived at Bombay on his return from the front in France, having come on short leave to take part in the marriage ceremony of his sister with H. H. the Maharajah of Jodhpur.

7th.—Bombay Legislative Council at the Secretariat Bombay. H. E. the Governor presiding. The Council on the motion of His Excellency passed a resolution expressing its sense of loss through the death of the Hon. Sir Pherozshah Mehta, and then adjourned for the day.

8th.—Bombay Legislative Council. The Bill further to amend the Bombay Municipal Act of 1888 was passed through second and third readings.—The Hon. Mr. Carmichael moved the first reading of a Bill further to amend the Bombay Landings and Wharves Fees Act, 1892. The Bill was read a first time and referred to Select Committee. The Hon. Mr. M. B. Chhabal moved the first reading of a Bill further to amend the 82nd Courts Act 1886 and this measure was passed through all its stages into law. The remainder of the sitting was taken up with private resolutions.

H. E. the Governor formally inaugurated the duplicated water supply from Tansa main performing the ceremony at Malabar Hill Reservoir in the presence of a large gathering.

9th.—Bombay Legislative Council. The Hon. Mr. P. S. Karnat then moved.—This Council recommends that Government may be pleased to consider the advisability of so amending Section 11 of the Bombay Medical Act, 1912, as to enable persons practising indigenous systems of medicine to hold, with the sanction of Government, appointments as Medical Officers

in Municipal Dispensaries or other public institutions supported by local funds and conducted according to Indian systems of medicines. After a long and animated discussion the resolution was carried.

H. E. the Viceroy at Mangla formally opened the new Upper Jhelum Irrigation Canal.

Following an appeal to H. E. the Governor of Bombay for his advice and sympathy in composing the differences between Mahomedans as to the holding of a session of the All India Modern League in Bombay a conference of Mahomedans was held at the Bombay Secretariat, at which His Excellency presided and the Hon. Sir Ali Imam was present. It was agreed that the session should be held and that at it the League should pass a resolution of loyalty to the Government while the League might if it desired appoint a committee to confer with other political organizations "with a view to framing a scheme of reform, having due regard for the needs of Mahomedans." The report of the committee to be presented at the next annual session of the All India Modern League and a resolution should be passed praying His Majesty's Government to extend H. E. Lord Hardinge's term of office.

10th.—H. H. the Maharaja Shri Vijayasthji was installed on the gadi of Rajpipla in succession to his father. His Highness, in a speech after the investiture requested the Political Agent to offer to H. M. the King Emperor through the Imperial Government his assurances that his services and the entire resources of the State were at His Majesty's disposal and as a token of his deep and unflinching loyalty His Highness offered to His Majesty an armed aeroplane.

A great public meeting to pay a tribute to the memory of the late Hon. Sir Pherozshah Mehta, was held in the Congress grounds in Bombay. H. E. the Governor presided and H. E. the Viceroy sent a telegram associating himself with the grief of the people of Bombay in their loss and subscribing Rs. 1,000 to any memorial fund that might be initiated. A resolution expressing the sense of loss felt by the citizens of Bombay at Sir Pherozshah's death and their appreciation of his public life and example was passed. It was resolved to communicate the deep sympathies and condolence of the meeting to Lady Mehta, and decided to raise a suitable memorial or memorials a committee being appointed to collect subscriptions and take other necessary measures. Subscriptions amounting to Rs. 18,500 in addition to H. E. the Viceroy's Rs. 1,000, were announced at the meeting.

18th.—As previously arranged a cricket carnival in aid of the Women's Branch of the Bombay Presidency War and Relief Fund was opened on the Bombay Gymkhana ground by a match between sides captained respectively by H. H. the Governor and H. H. the Maharaja of Patiala, the former representing England and the latter India, the players being selected in both cases from all over India. The Indian team won the toss and batted first.

15th.—The cricket match, England vs India, in Bombay resulted in a win for the English team by an innings and 263 runs. After play, H. H. the Jam Sahib of Nawanganar offered H. H. the Governor's bat and the five cricket balls used in the game for sale by auction. H. H. the Maharaja of Patiala bought the bat for Rs. 2,500 and the five balls sold separately realised a total sum of Rs. 742.

17th.—Death at Bombay at the age of 66 of Mr. Romanyee Dinshaw Petit millowner and millionaire.

19th.—The second match of the Bombay cricket carnival, which was between the Parsies and the Hindus, ended in a draw after an exciting finish. The Women's Branch of the Bombay Presidency War and Relief Fund in aid of which the carnival was inaugurated benefited by about Rs. 20,000.

23rd.—The Governor of Bombay Lady Willington and party left Bombay for a tour in Sind.

The eleventh session of the Indian Industrial Conference opened at Bombay Sir Dabir Tata presiding. The session continued on the 28th.

H. F. the Commander-in-Chief in India published a message from H. M. the King Emperor conveying His Majesty's and H. M. the Queen Empress' Christmas greeting and good wishes for the new year to all who on sea and land were upholding the honour of the British name.

25th.—H. F. the Viceroy sent Christmas greetings in the person of H. H. the Maharajah Scindia at Gwalior.

26th.—The first Indian Commercial Congress was held in the Town Hall, Bombay, Sir Jamnabhai (Jirimbhai) being elected President.

27th.—The sittings of the 20th Indian National Congress commenced in Bombay under the Presidency of Sir S. P. Sinha of Calcutta. Among the resolutions passed was one declaring the loyalty of the people of India to the British Government and their willingness to serve the Empire. Another begged for a further extension of Lord Harding's term as Viceroy. Sir S. P. Sinha in his Presidential address reiterated the claim of Indians to self Government and declared his faith that under British rule it would be given to them as a matter of evolution and urged cooperation with Government in working out the process of development.

28th.—The All India Mahomedan Education Conference met at Poona with Han Mr. J. A. Abdur Rahman president.

30th.—The P. & O. Company's steamer *Perla* bound from London to Bombay, was sunk by an enemy submarine in the Mediterranean off Crete. Out of 231 passengers and about 270 crew, only 166 were saved. The passenger list included the names of Mr. P. M. Coleman, Director of Bennett Coleman & Co. Ltd. Proprietors of the *Times of India* and his son Mr. V. M. Coleman.

The twenty-ninth session of the Indian Social Conference assembled in Bombay. Prof. D. K. Karve presiding.

The eighth session of the All India Moslem League opened in Bombay. Mr. Marhabul Haque presiding.

The twelfth All India Temperance Conference was held at Bombay.

31st.—The second day's proceedings of the All Moslem League were marked by scenes of rowdism which resulted in the adjournment of the meeting until the next day, when it was held at the Taj Mahal Hotel and attendance was limited to the members of the League only.

INTEREST TABLE.

FROM 5 TO 12 PER CENT ON RUPEES 100

Calculated for 1 Year, 1 Month (Calendar), 1 Week and 1 Day (365 Days to Year) the Decimals of a Rupee for the Day being shown for the Day.

Per cent	1 day	1 Week	1 Month	1 Year
	R S A P	R S A P	R S A P	R S A P
5	0 0 2 041	0 1 0	0 8 8	5 0 0
6	0 0 2 426	0 1 10	0 9 0	6 0 0
7	0 0 3 682	0 2 1	0 9 4	7 0 0
8	0 0 4 208	0 2 1	10 8	8 0 0
9	0 0 4 734	0 2 9	10 12 11	9 0 0
10	0 0 5 260	0 3 0	10 13 4	10 0 0
11	0 0 5 786	0 3 4	10 14 8	11 0 0
12	0 0 6 312	0 4	10 15 0	12 0 0

Table of Exchange, No 1—Rupees into Pounds Sterling.

For values of Rupees from 1s 3½d to 1s 3¼d

Rupees	1s 3½d	1s 3½d	1s 3½d	1s 3¼d	1s 3¼d	1s 3¼d
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
1	0 1 3½	0 1 3½	0 1 3½	0 1 3½	0 1 3½	0 1 3½
5	0 6 11	0 6 11	0 6 11	0 6 11	0 6 11	0 6 11
10	0 12 11	0 12 11	0 12 11	0 12 11	0 12 11	0 12 11
20	1 5 10	1 5 11	1 6 0	1 6 1	1 6 2	1 6 3
30	1 15 9	1 15 10	1 16 0	1 16 1	1 16 2	1 16 3
40	2 11 8	2 11 9	2 12 0	2 12 1	2 12 2	2 12 3
50	3 4 7	3 4 8	3 5 0	3 5 1	3 5 2	3 5 3
60	3 17 6	3 17 7	3 18 0	3 18 1	3 18 2	3 18 3
70	4 10 5	4 10 6	4 11 0	4 11 1	4 11 2	4 11 3
80	5 3 4	5 3 5	5 4 0	5 4 1	5 4 2	5 4 3
90	5 16 3	5 16 4	5 17 0	5 17 1	5 17 2	5 17 3
100	6 9 2	6 9 3	6 10 0	6 10 1	6 10 2	6 10 3
250	16 9 2	16 9 3	16 10 0	16 10 1	16 10 2	16 10 3
400	25 16 8	25 16 9	26 0 0	26 0 1	26 0 2	26 0 3
500	32 5 10	32 5 11	32 10 0	32 10 1	32 10 2	32 10 3
750	48 8 0	48 8 1	49 0 0	49 0 1	49 0 2	49 0 3
1000	64 11 8	64 11 9	65 2 0	65 2 1	65 2 2	65 2 3

For values of Rupees from 1s 3¼d to 1s 4½d

Rupees	1s 3¼d	1s 3¼d	1s 3¼d	1s 4d	1s 4½d	1s 4½d
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
1	0 1 3¼	0 1 3¼	0 1 3¼	0 1 4	0 1 4	0 1 4
5	0 6 11	0 6 11	0 6 11	0 6 8	0 6 8	0 6 8
10	0 13 3	0 13 3	0 13 3	0 13 4	0 13 4	0 13 4
20	1 6 6	1 6 7	1 6 8	1 6 9	1 6 10	1 6 11
30	1 19 10	1 19 11	2 0 0	2 0 1	2 0 2	2 0 3
40	2 12 11	2 13 0	2 13 1	2 13 2	2 13 3	2 13 4
50	3 6 14	3 6 15	3 6 16	3 6 17	3 6 18	3 6 19
60	3 19 8	3 19 9	3 19 10	3 19 11	3 19 12	3 19 13
70	4 12 7	4 12 8	4 12 9	4 12 10	4 12 11	4 12 12
80	5 5 10	5 5 11	5 5 12	5 5 13	5 5 14	5 5 15
90	5 19 0	5 19 1	5 19 2	5 19 3	5 19 4	5 19 5
100	6 12 3	6 12 4	6 12 5	6 12 6	6 12 7	6 12 8
250	16 10 2	16 10 3	16 10 4	16 10 5	16 10 6	16 10 7
400	26 0 8	26 0 9	26 0 10	26 0 11	26 0 12	26 0 13
500	33 1 5	33 1 6	33 1 7	33 1 8	33 1 9	33 1 10
750	49 1 1	49 1 2	49 1 3	49 1 4	49 1 5	49 1 6
1000	65 11 1	65 11 2	65 11 3	65 11 4	65 11 5	65 11 6

For values of Rupees from 1s 4½d to 1s 4¼d

Rupees	1s 4½d	1s 4½d	1s 4½d	1s 4¼d	1s 4¼d	1s 4¼d
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
1	0 1 4	0 1 4	0 1 4	0 1 4	0 1 4	0 1 4
5	0 6 8	0 6 8	0 6 8	0 6 8	0 6 8	0 6 8
10	0 13 5	0 13 5	0 13 5	0 13 5	0 13 5	0 13 5
20	1 6 11	1 6 12	1 6 13	1 6 14	1 6 15	1 6 16
30	2 0 4	2 0 5	2 0 6	2 0 7	2 0 8	2 0 9
40	2 13 7	2 13 8	2 13 9	2 13 10	2 13 11	2 13 12
50	3 7 0	3 7 1	3 7 2	3 7 3	3 7 4	3 7 5
60	4 0 3	4 0 4	4 0 5	4 0 6	4 0 7	4 0 8
70	4 13 10	4 13 11	4 13 12	4 13 13	4 13 14	4 13 15
80	5 7 3	5 7 4	5 7 5	5 7 6	5 7 7	5 7 8
90	6 0 8	6 0 9	6 0 10	6 0 11	6 0 12	6 0 13
100	6 14 12	6 14 13	6 14 14	6 14 15	6 14 16	6 14 17
250	16 15 3	16 15 4	16 15 5	16 15 6	16 15 7	16 15 8
400	26 16 5	26 16 6	26 16 7	26 16 8	26 16 9	26 16 10
500	33 10 1	33 10 2	33 10 3	33 10 4	33 10 5	33 10 6
750	49 11 1	49 11 2	49 11 3	49 11 4	49 11 5	49 11 6
1000	65 11 1	65 11 2	65 11 3	65 11 4	65 11 5	65 11 6

Table of Exchange, No. 2—Pounds Sterling into Rupees.

For values of Rupees from 1s 3½d to 1s 3¼d

Sterling	at 1s. 3½d	at 1s. 3¼d	at 1s. 3½d	at 1s. 3¼d	at 1s. 3½d	at 1s. 3¼d
£ s. d.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
0 0 1	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0	0 1 0
0 0 4	0 4 1	0 4 1	0 4 1	0 4 0	0 4 0	0 4 0
0 0 6	0 6 2	0 6 2	0 6 1	0 6 1	0 6 1	0 6 0
0 0 9	0 9 3	0 9 3	0 9 2	0 9 2	0 9 1	0 9 1
0 1 0	0 12 4	0 12 4	0 12 3	0 12 2	0 12 2	0 12 1
0 2 6	1 14 11	1 14 10	1 14 7	1 14 6	1 14 5	1 14 3
0 5 0	3 13 11	3 13 8	3 13 5	3 13 2	3 12 11	3 12 8
0 7 6	5 12 10	5 12 6	5 12 1	5 11 0	5 11 5	5 10 11
0 10 0	7 11 10	7 11 4	7 10 10	7 10 4	7 9 10	7 9 5
1 0 0	15 7 8	15 6 8	15 5 0	15 4 9	15 3 9	15 2 10
5 0 0	77 6 8	77 1 8	76 12 0	76 7 10	75 8 0	75 14 0
10 0 0	154 13 5	154 3 5	153 0 7	152 15 9	152 6 1	151 12 5
25 0 0	387 1 6	385 8 7	383 16 11	382 7 5	380 16 2	379 7 1
30 0 0	464 8 1	462 10 4	460 12 9	458 15 6	457 2 3	455 5 4
50 0 0	774 3 1	771 1 4	768 0 0	764 10 0	761 14 5	758 14 6
75 0 0	1,161 4 7	1,156 9 11	1,161 15 11	1,147 6 5	1,142 13 8	1,138 5 4
100 0 0	1,548 6 2	1,542 2 8	1,536 0 0	1,529 14 1	1,523 12 11	1,517 12 7

For values of Rupees from 1s 3½d to 1s 4, d

Sterling	at 1s. 3½d	at 1s. 3¼d	at 1s. 3½d	at 1s. 4d	at 1s. 4½d	at 1s. 4¾d
£ s. d.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
0 0 1	0 1 0	0 1 0	0 1 0	0 1 0	0 0 11	0 0 11
0 0 4	0 4 0	0 4 0	0 4 0	0 4 0	0 3 11	0 3 11
0 0 6	0 6 0	0 6 0	0 6 0	0 6 0	0 5 11	0 5 11
0 0 9	0 9 0	0 9 0	0 9 0	0 9 0	0 8 11	0 8 11
0 1 0	0 12 1	0 12 0	0 12 0	0 12 0	0 11 11	0 11 11
0 2 6	1 14 2	1 14 1	1 14 0	1 14 0	1 13 10	1 13 9
0 5 0	3 12 5	3 12 2	3 12 1	3 12 0	3 11 10	3 11 9
0 7 6	5 10 7	5 10 3	5 10 1	5 10 0	5 9 9	5 9 7
0 10 0	7 8 11	7 8 5	7 8 2	7 8 0	7 7 9	7 7 6
1 0 0	15 1 10	15 0 11	15 0 5	15 0 0	14 15 6	14 15 0
5 0 0	76 9 5	76 4 8	75 2 4	75 0 0	74 13 7	74 11 3
10 0 0	151 2 10	150 9 4	150 4 8	150 0 0	149 11 8	149 6 7
25 0 0	377 15 2	376 7 5	375 11 8	375 0 0	374 4 2	373 8 6
30 0 0	453 8 8	451 12 2	450 14 1	450 0 0	449 1 11	448 3 11
50 0 0	755 14 5	752 15 0	751 7 5	750 0 0	748 8 7	747 1 8
75 0 0	1,188 13 8	1,182 6 6	1,127 3 2	1,125 0 0	1,122 12 10	1,120 9 10
100 0 0	1,511 12 11	1,505 14 1	1,502 14 11	1,500 0 0	1,497 1 2	1,494 2 7

For values of Rupees from 1s 4½d to 1s 4¾d

Sterling	at 1s. 4½d	at 1s. 4¼d	at 1s. 4½d	at 1s. 4¾d	at 1s. 4¾d	at 1s. 4¾d
£ s. d.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
0 0 1	0 0 11	0 0 11	0 0 11	0 0 11	0 0 11	0 0 11
0 0 4	0 3 11	0 3 11	0 3 11	0 3 11	0 3 11	0 3 11
0 0 6	0 5 11	0 5 11	0 5 11	0 5 11	0 5 11	0 5 10
0 0 9	0 8 11	0 8 11	0 8 10	0 8 10	0 8 10	0 8 10
0 1 0	0 11 11	0 11 10	0 11 10	0 11 10	0 11 10	0 11 9
0 2 6	1 13 9	1 13 8	1 13 8	1 13 7	1 13 7	1 13 5
0 5 0	3 11 7	3 11 6	3 11 5	3 11 3	3 11 2	3 11 0
0 7 6	5 9 5	5 9 3	5 9 1	5 8 11	5 8 9	5 8 6
0 10 0	7 7 8	7 7 0	7 6 10	7 6 7	7 6 4	7 6 1
1 0 0	14 14 7	14 14 1	14 13 8	14 13 2	14 12 9	14 12 8
5 0 0	74 9 0	74 8 8	74 4 4	74 2 1	73 15 9	73 15 6
10 0 0	149 2 0	148 13 4	148 8 9	148 4 2	147 15 7	147 11 0
25 0 0	372 13 0	372 1 8	371 8 10	370 10 5	369 15 0	369 5 7
30 0 0	447 6 9	446 8 2	445 10 4	444 12 7	443 14 10	443 1 2
50 0 0	746 19 1	744 2 11	742 11 11	741 5 0	739 14 1	738 7 4
75 0 0	1,113 7 1	1,112 4 5	1,111 13 5	1,111 13 5	1,109 13 1	1,107 11 0
100 0 0	1,491 4 2	1,488 5 11	1,486 7 10	1,482 10 0	1,479 12 3	1,476 14 9

The Ministry.

(CABINET MARKED THUS*)

Prime Minister Mr Asquith *
Minister without Portfolio Lord Lansdowne *
Lord Chancellor Lord Buckmaster *
Lord President of the Council Lord Crewe *
Lord Privy Seal Lord Curzon *

PRESIDENTS

Board of Trade Mr Runciman *
Local Government Board Mr Long *
Board of Education Mr Henderson *
Board of Agriculture Lord Selborne *

SECRETARIES OF STATE

Home Mr H. Samuel
Foreign Sir F. Grey *
Colonies Mr Bonar Law *
War Earl Kitchener *
India Mr Chamberlain *

TREASURY

First Lord The Prime Minister
Chancellor of the Exchequer Mr McKenna *
Junior Lords Mr G. H. Roberts Mr C. Howland
 and Mr Bridgeman Mr W. Rea
Financial Secretary Mr E. Montagu
Parliamentary Secretaries Mr J. W. Guillard
 and Lord Edmund Talbot

PARLIAMENTARY UNDER SECRETARIES

Home Mr Bruce
Foreign Lord E. Cecil
Colonies Mr Steel Maitland
India Lord Inington
War Mr H. J. Tennant
Board of Trade, Captain Protzman
Local Government Board Mr Hayes Fisher
Board of Agriculture, Mr Acland
Board of Education, Mr H. Lewis
Postmaster-General
Assistant-Postmaster-General, Mr Pike Pease

Chancellor of the Duchy of Lancaster, Mr B. Samuel
First Commissioner of Works Mr Harcourt *
Paymaster-General, Lord Newton.

ADMIRALTY

First Lord Mr Balfour *
First Sea Lord Admiral Sir Henry Jackson.
Second Sea Lord Vice Admiral Sir F. T. Hamilton
Third Sea Lord Rear Admiral F. C. T. Tado
 (C. B.)
Fourth Sea Lord, Capt. Cecil Lambert
Civil Lord The Duke of Devonshire
Parliamentary Secretary Dr Macnamara

ARMY COUNCIL

Secretary of State for War (as above)
Minister of Munitions Mr Lloyd George *
Munitions Dr C. Addison
Chief of the General Staff Sir W. E. Robertson
Adjutant Gen. Lt. Gen. Sir H. C. Selater
Quartermaster General Major Gen. Sir John S. Cowans
Master General of the Ordnance Brig. Gen. S. B. von Donop
Parliamentary Under Secretary (as above)
Financial Secretary Mr H. W. Foster
Attorney-General Sir F. F. Smith
Solicitor General Sir G. Cave

SCOTLAND

Secretary for Scotland Mr M. K. Wood *
Lord Advocate Mr R. Munro
Solicitor-General Mr T. B. Morrison

IRELAND

Lord Lieutenant Lord Wimborne
Lord Chancellor Mr I. O'Brien
Chief Secretary Mr Birrell *
Attorney General Mr J. Gordon
Solicitor-General Mr James O'Connor

For many years Indian time was in a state of chaotic confusion. What was called Madras or Railway time was kept on all the railways and each great centre of population kept its own local time, which was not based on any common scientific principle and was divorced from the standards of all other countries. It was with a view to remedying this confusion that the Government of India took the matter up in 1904, and addressed to the Local Governments and through them to all local bodies a long letter which reviewed the situation and made suggestions for the future. The essential points in this letter are indicated below.

"In India we have already a standard time, which is very generally though by no means universally recognised. It is the Madras local time which is kept on all railway and telegraph lines throughout India and which is 5h 21m 10s. in advance of Greenwich. Similarly Rangoon local time is used upon the railways and telegraphs of Burma, and is 6h. 24m. 47s. ahead of Greenwich. But neither of these standards bears a simple and easily remembered relation to Greenwich time.

"The Government of India have several times been addressed by Scientific Societies both in India and in England, and urged to fall into line with the rest of the civilised world. And now the Royal Society has once more returned to the attack. The Committee of that Society which advises the Government of India upon matters connected with its observatories writes—The Committee think that a change from Madras time to that corresponding to a longitude exactly 5½ hours east of Greenwich would be an improvement upon the existing arrangements, but that for international scientific purposes the hourly zone system, making the time 5 hours in advance of Greenwich in the west, and 5 hours in advance in the east of India, would be preferable.

"Now if India were connected with Europe by a continuous series of civilised nations with their continuous railway systems all of which had adopted the European hour zone system it would be imperative upon India to conform and to adopt the second suggestion. But as she is not and as she is as much isolated by uncivilised states as Cape Colony is by the ocean it is open to her to follow the example of that and some other similarly situated colonies and to adopt the first suggestion.

"It is believed that this will be the better solution. There are obvious objections to drawing an arbitrary line right across the richest and most populous portions of India and so as to bisect all the main lines of communication, and keeping those differing by an hour on opposite sides of that line. India has become accustomed to a uniform standard in the Indian time of the railways, and the substitution for it of a double standard would appear to be a retrograde step while it would in all probability be strongly opposed by the railway authorities. Moreover it is very desirable that whatever system is adopted should be followed by all Europeans and Indians alike and it is certain that the double standard would puzzle the latter greatly while by emphasizing the fact that railway differed from local time, it might perhaps or even altogether prevent the acceptance of the former instead of the latter by people generally over a large part of India. The one great advantage which the second

possesses over the first alternative is that under the former, the difference between local and standard time can never exceed half an hour whereas under the latter it will even exceed an hour in the extreme cases of Karachi and Quetta. But this inconvenience is believed to be smaller than that of keeping two different times on the Indian system of railways and telegraphs.

It is proposed therefore, to put on all the railway and telegraph clocks in India by 8m 50s. They would then represent a time 5½ hours faster than that of Greenwich, which would be known as Indian Standard Time and the difference between standard and local time at the places mentioned below would be approximately as follows, the figures representing minutes and F and S. meaning that the standard time is in advance of or behind local time respectively—Dibrugarh 51 S, Shillong 38 S, Calcutta 24 S, Allahabad 2 F, Madras 9 F, Lahore 33 F, Bombay 30 F., Peshawar 44 F, Karachi 62 F., Quetta 62 F.

This standard time would be as much as 4½ and 5½ minutes behind local time at Mandalay and Rangoon respectively and since the railway system of Burma is not connected with that of India, and already keeps a time of its own, namely Rangoon local time it is not suggested that Indian Standard Time should be adopted in Burma. It is proposed however, that in stead of using Rangoon Standard Time as at present which is 6h 24m. 47s. in advance of Greenwich, a Burma Standard Time should be adopted on all the Burmese railways and telegraphs which would be one hour in advance of Indian Standard Time or 5½ hours ahead of Greenwich time and would correspond with 97° 30' E. longitude. The change would bring Burma time into simple relation both with European and with Indian time and would (among other things) simplify telegraphic communication with other countries.

Standard time will thus have been fixed for railways and telegraphs for the whole of the Indian Empire. Its general adoption for all purposes while eminently advisable is a matter which must be left to the local community in each case.

It is difficult to recall without a sense of bewilderment, the reception of this proposal by various local bodies. To read now the fears that were entertained if Standard Time was adopted is a study in the possibilities of human error. The Government scheme left local bodies to decide whether or not they would adopt it. Calcutta decided to retain its own local time and to-day Calcutta time is still twenty four minutes in advance of Standard Time. In Bombay the first reception of the proposal was hostile but on reconsideration the Chamber of Commerce decided in favour of it and so did the Municipality. Subsequently the opposing element in the Municipality brought in a resolution by which the Municipal clocks were put at Bombay time which is thirty nine minutes behind Standard Time. On the 1st January 1906 all the railway and telegraph clocks in India were put at Indian Standard Time. In Burma the Burma Standard Time became universal. Calcutta retains its former Calcutta time, but in Bombay local time is retained only in the clocks which are maintained by the Municipality and in the establishments of some orthodox Hindus. Elsewhere Standard Time is universal.

Indian Stamp Duties.

	Rs. a		Rs. a.
Acknowledgment of Debt ex Rs 20	0 1	In any other case	5 0
Affidavit or Declaration	1 0	Cancellation	5 0
Agreement or Memo of Agreement,		Certificate or other Document relating to Shares	0 1
(a) If relating to the sale of a bill of exchange	0 2	Charter Party	1 0
(b) If relating to sale of a Government security or share in an incorporated company or other body corporate—Subject to a maximum of Rs 10 a 1 for every Rs 10,000 or part		Cheque	0 1
(c) If not otherwise provided for	0 8	Composition—Debt	10 0
Appointment in execution of a power	15 0	Conveyance not being a Transfer—	
Articles of Association of Company	25 0	Not exceeding Rs. 50	0 8
Articles of Clerkship	25 0	Exceeding Rs. 50 not exceeding Rs. 100	1 0
Award any decision in writing by an Arbitrator other than by an Order of the Court. Where the value does not exceed Rs 1,000, same duty as a Bond		For every Rs 100 in excess of Rs. 100 up to Rs. 1,000	1 0
In any other case	5 0	For every Rs. 500, or part thereof in excess of Rs. 1,000	5 0
Bill of Exchange or Promissory Note payable on demand	0 1	Copy or Extract—If the original was not chargeable with duty or if duty with which it was chargeable does not exceed 1 Rupee	0 8
Where payable otherwise than on demand but not more than one year after date of sight—Not exc Rs 200 a 3 exc Rs 200 not exc Rs 400 a 6 exc Rs 400 not exc Rs 600 a 9 exc Rs 600 not exc Rs 800 a 12 exc Rs 800 not exc Rs 1,000 a 15 exc Rs 1,000 not exc Rs 1,200 R 1 a 2 exc Rs. 1,200 not exc Rs 1,600 R 1 a 8 exc Rs. 1,600 not exc Rs 2,500 Rs 2 a 4 exc Rs 2,500 not exc Rs 5,000 Rs 4 a 8 exc Rs. 5,000 not exc Rs. 7,500 Rs 6 a 12 exc Rs. 7,500 not exc Rs 10,000 Rs. 9 exc Rs. 10,000 not exc Rs 15,000 Rs 17 a 8 exc Rs 15,000 not exc Rs 20,000 Rs 18 exc Rs 20,000 not exc Rs 25,000 Rs. 22 a 8 exc Rs 25,000 not exc Rs 30,000 Rs 27 and for every add Rs 10,000 or part thereof in excess of Rs 30,000 Rs 9		In any other case	1 0
Where payable at more than one year after date of sight same duty as a Bond		Counterpart or Duplicate—If the duty with which the original instrument is chargeable does not exceed one rupee—The same duty as is payable on the original In any other case	1 0
Bill of Lading	0 1	Delivery Order	0 1
Bond (not otherwise provided for)—		Entry in any High Court of an Advocate or Vakil	500 0
Not exc. Rs. 10	0 2	In the case of an Attorney	250 0
Exc. Rs. 10, but not exc. Rs. 50	0 4	Instrument—Apprenticeship	5 0
Exc. Rs. 50 but not exc Rs 100	0 8	Divorce	1 0
Up to Rs. 1,000 every Rs. 100	0 8	Other than Will recording an adoption or conferring or purporting to confer Authority to adopt	10 0
For every Rs. 500 or part, beyond Rs. 1,000	2 8	Lease—Where rent is fixed and no premium is paid, for less than 1 year same duty as Bond for whole amount not more than 3 years, same as Bond for average annual rent reserved over 3 years, same as Conveyance for consideration equal to amount or value of the average annual rent reserved for indefinite term, same as Conveyance for a consideration equal to the amount or value of the average annual rent which would be paid or delivered for the first ten years if the lease continued so long in perpetuity, same as Conveyance for consideration equal to one-fifth of rents paid in respect of first 50 years. Where there is premium and no rent, same as Conveyance for amount of premium premium with rent, same as Conveyance for amount of premium, and same duty as Lease without premium	
Bond, Administration, Customs, Security or Mortgage Deed—For amount not exceeding Rs. 1,000, same duty as a Bond.			

	Rs. &		Rs. &
<i>Letter</i> —Allotment of Shares	0 1	In case of a re-insurance by one Com- pany with another—1/2 of duty pay- able in respect of the original insur- ance, but not less than 1 anna, or more than 1 R.	
Credit	0 1		
License	10 0		
<i>Memo. of Association of Company</i> —If accompanied by Articles of Association	13 0	<i>Power of Attorney</i> —	
If not so accompanied	40 0	For the sole purpose of procuring the registration of one or more documents in relation to a single transaction or for admitting execution of one or more such documents	0 6
<i>Notarial Act</i>	1 0		
<i>Note or Memo</i> intimating the purchase or sale—		When required in suits or proceedings under the Presidency Small Causes Courts Act 1882	0 8
(a) Of any Goods exceeding in value Rs. 20	0 2	Authorising 1 person or more to act in a single transaction other than that mentioned above	1 0
(b) Of any Stock or marketable Secu- rity exceeding in value Rs. 20— Subject to a maximum of Rs. 10 & 1 for every Rs. 10,000 or part		Authorising not more than 5 persons to act jointly and severally in more than 1 transaction, or generally	6 0
<i>Note of Protest</i> by a Ship's Master	0 8	Authorising more than 5 but not more than 10 persons to act	10 0
<i>Partnership</i> —Where the capital does not exceed Rs. 500	2 8	When given for consideration* and authorising the Attorney to sell any im- movable property—The same duty as a Conveyance for the amount of the consi- deration	
In any other case	10 0	In any other case, for each person authorised	1 0
Dissolution of	0 0	<i>Protest of Bill or Note</i>	1 0
<i>Policy of Insurance</i> —		<i>Proxy</i>	0 1
(1) <i>Sea</i> —Where premium does not exceed rate of 2s. or 1 per cent of amount insured	0 1	<i>Receipt</i> for value exc. Rs. 20	0 1
In any other case for Rs. 1,500 or part thereof	0 1	<i>Shipping Order</i>	0 1
(2) <i>For time</i> —For every Rs. 1,000 or part insured, not exc. 6 months	0 2	<i>Surrender of Lease</i> —When duty with which lease is chargeable does not exceed Rs. 5 —The duty with which such Lease is chargeable.	
Exceeding 6 and not exceeding 12 months	0 4	In any other case	5 0
If drawn in duplicate, for each part— Half the above rates, for Sea and Time.		<i>Transfer of Shares</i> —One Half of the duty payable on a Conveyance for a consideration equal to the value of the share.	
(3) <i>Fire</i> —When the sum insured does not exceed Rs. 5,000	0 8	<i>Transfer of any Interest</i> secured by a Bond, Mortgage-deed or Policy of Insurance—If duty on such does not exceed Rs. 5—The duty with which such Bond, &c., is chargeable	
In any other case	1 0	In any other case	5 0
In respect of each receipt for any payment of a premium on any renewal of an original policy—One half of the duty payable in respect of the original policy in addition to the amount, if any chargeable under Art 53 (Receipt).		<i>Transfer of Lease</i> by way of assignment and not by way of under-lease—The same duty as a conveyance for a consi- deration equal to the amount of the con- sideration for the transfer	
(4) <i>Accident and Steamer</i> —Against Railway accident, valid for a single journey only	0 1	<i>Trust, Declaration of</i> —Same duty as a Bond for a sum equal to the amount or value of the property concerned, but not exceeding	15 0
In any other case—for the maximum amount which may become payable in the case of any single accident or steamer where such amount does not exc. Rs. 1,000, and also where specified sum, Rs. 1,000, for every Rs. 1,000 or part	0 2	Revocation of— <i>Idem</i> , but not subse- ding	10 0
(5) <i>Life, or other Insurance</i> , not speci- fically provided for, not Rs. 1,000	0 0	<i>Warrant for Goods</i>	0 0

FOREIGN MONIES, AND THEIR ENGLISH EQUIVALENTS.

FULL EXCHANGE VALUES

	£	s	d
America—(United States) Eagle	2	1	1
Dollar of 100 Cents	0	4	2
Cent	0	0	04
Argentina—Peso	0	3	11½
Austria—Silver Crown	0	0	10
10 Kreuzers or 30 Hellers	0	0	2
Belgium—Gold Ten Franc Piece	0	7	11½
Silver Five Franc	0	3	11½
Franc	0	0	9½
Orléans—Peso	0	1	6
Denmark, Norway and Sweden—	0	1	1½
Krone 100 Ore—1 Krone			
Egypt—EE of 100 Piastres	1	0	3½
One Piastre (about)	0	0	2½
France—Gold Twenty Franc Piece	0	15	10½
Silver Five-Franc Piece	0	3	11½
Franc	0	0	9½
Germany—(New Coinage)—			
Gold 20-Mark Piece	0	10	7
10	0	9	9½
Silver 5	0	4	10½
1	0	0	11½
1	0	0	5½
2 Thaler Piece	0	5	10½
1 Piece	0	2	11½
Hesse—Twenty Drachmas Gold			
Piece	0	15	10
One Drachma (silver)	0	0	9½
Holland—Ten Florins (Gulden)	0	16	8
Florin (Gulden)	0	1	8

	£	s	d
India—1 Rupee (varying in value)	0	1	4
1	0	0	8
1	0	0	4

Since 1899 the Sovereign has been legal tender at the ratio of 15 rupees to the £ sterling (=1s 4d the rupee)

Italy—Gold 20-Lire Piece	0	15	10
One Lira (Silver)	0	3	11½
Japan—Gold 20 Yen Pieces	2	0	11½
Silver 50 Sen Pieces	0	1	0½
Value in exchange—1 Yen=100 Sen=	2	0	11½
Persia—Sol. Silver	0	2	0
Portugal—Gold Milreis	0	4	5½
Silver Half Milreis	0	2	2½
100 Reis	0	0	5½
Russia—Half Imperial	0	15	9½
Silver Rouble	0	2	0
Ten Kopecks	0	0	11½
Spain—(Gold)—25 Pesetas	0	19	9½
(Silver)—5 Pesetas	0	3	11½
2	0	1	0½
1 Pesta	0	0	9½
The Peseta=100 Centimos (Centimes)			
Switzerland—Gold 20-Franc Piece	0	15	10½
Silver 5-Franc Piece	0	3	11½
Franc	0	0	9½
Turkey—Gold Madjidié	0	18	0½
Silver Madjidié	0	8	7
Piastre	0	0	2½

ECLIPSES IN 1916

Of the SUN Three of the MOON, Two

I. JANUARY 20 Partial Eclipse of the Moon
Visible in the extreme W of Europe the Atlantic, N and S America the Pacific and N E Asia.

	A. M.
Moon enters shadow	7 55 a.m.
leaves	9 24 a.m.

II FEBRUARY 3. Total Eclipse of the Sun
Line of Central Eclipse crosses the E Pacific, Columbia, N W of Venezuela, Guadalupe the Azores, and ends in Long 10 W, Lat 49 N. Partial Eclipse visible in N America (except N W) in N W of S America, the Atlantic, N W Africa, Portugal, Spain, France and the British Isles.

	A. M.	Long	Lat.
Eclipse begins	1 27 p.m.	in 109° W	3° 8'
Central Eclipse begins	2 29 p.m.	in 125° W	7° N
" ends	5 31 p.m.	in 10° W	49° N
"	6 33 p.m.	in 19° W	39° N

At * Begins.

	A. M.
Dublin	4 2 p.m.
Edinburgh	4 27 p.m.
Liverpool	4 28 p.m.
Oxford	4 30 p.m.
Cambridge	4 30 p.m.
London	4 31 p.m.

* Irish Time

III. JULY 15 Partial Eclipse of the Moon.
Visible in Africa, S W Europe the Atlantic, N and S America and the S Pacific

	A. M.
Moon enters shadow	3 19 a.m.
leaves	6 12 a.m.

IV JULY 29-30 Annular Eclipse of the Sun
Line of Central Eclipse crosses Australia between Sharks Bay and Exmouth Gulf over Townsend Ranges, E. of Lake Gardner Adelaide and Tasmania. Partial Eclipse visible in Malay Peninsula Further India, the Philippines, Malaysia Australia, Tasmania and New Zealand

	d	A. M.	Long	Lat.
Eclipse begins	29	11 25 p.m.	in 103° E	9 S
Central Eclipse				
begins	30	0 51 a.m.	in 90° E	29° S
ends	30	3 21 a.m.	in 179° E	64° S
"	30	4 47 a.m.	in 179° E	46° S

	Begins	Ends
	d. A. M.	A. M.
Adelaide	30 10 18 a.m.	1 45 p.m.
(Annular)	11 57 a.m.	0 8 p.m.
Perth	7 58 a.m.	11 10 a.m.
Melbourne	11 2 a.m.	2 26 p.m.
Sydney	11 12 a.m.	2 28 p.m.
Wellington N.Z.	1 42 p.m.	4 16 p.m.

V DECEMBER 24 Partial Eclipse of the Sun. Visible only in the Antarctic regions.

The Calendars.

A full Calendar will be found at the beginning of this book. Below are given details of the other Calendars in use in India.

The *Jewish* Calendar is in accordance with the system arranged A. D. 358. The Calendar dates from the Creation, which is fixed as 3,760 years and 8 months before the beginning of the Christian Era: the year is Luni-solar.

The *Mohammedan*, or era of the *Hijra*, dates from the day after Mahomet's flight from Mecca which occurred on the night of July 15 622 A. D. The months are Lunar.

The *Parsi* year was derived from a combination of the *Hijra* and *Samsat* years by the order of Akbar. It is Luni-solar. The *Bengal* year seems also to have been related at one time to the *Hijra*, but the fact of its being Solar made it lose 11 days each year.

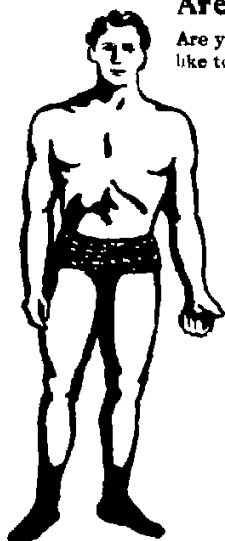
The *Samsat* era dates from 57 B. C., and is Luni-solar. The months are divided into two fortnights—*dark*, or *light*, and *dark*, or *light*. Each fortnight contains 15 tithis, which furnish the dates of the civil days given in our calendars.

PUBLIC HOLIDAYS IN 1916

Parsee (Shenshahi)			Hindu		
Jamshedji Naoroz	March	1	Makar Sankranti	January	14
Avan Jaahan	April	18	Maha Shivratri	March	1
Ada Jaahan	May	17	Holi		19
Zarthost no-dao	June	19	Bamnava	April	11
Gatha Gahambars	September	8	Gokal Ashtami	August	1
Parsee New Year		11	Ganesh Chaturthi	September	1
Khordad Sal		16	Dussehra	October	6
Parsee (Kadmi)			Divah		16
Avan Jaahan	March	19			17
Jamshedji Naoroz		1	Jewish		
Ada Jaahan	April	17	Pessach	April	18
Zarthost-no-dao	May	19			24
Gatha Gahambars	August	1	Shabuoath	June	7
Parsee New Year		11	Tishabeah	August	8
Khordad Sal		17	Rosh Hoshana	September	28
Mahomedan (Sunni)					29
Bara Wafat	January	18	Kippur	October	7
Shabe Berat	June	17	Sukkoth		12
Ramzan Id	August	1			20
Ashura and Moharrum	November	8	Jain		
Mahim Fair	December	9	Chaitra Sud 13	April	13
Mahomedan (Shiah)					26
Shahadat-e-Iman Hassan	January	5	Sharavan Vad 13, 30		28
Id-e-Mavid		28	Shadava Sud 1 2 & 3		20
Ramzan Id	August	1			30
Rehri Id	October	8	Samsat Sati	September	1
Ashura and Moharrum	November	8	Panjanan		2
		7	Kartik Sud. 13	November	9

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BANK OF BOMBAY

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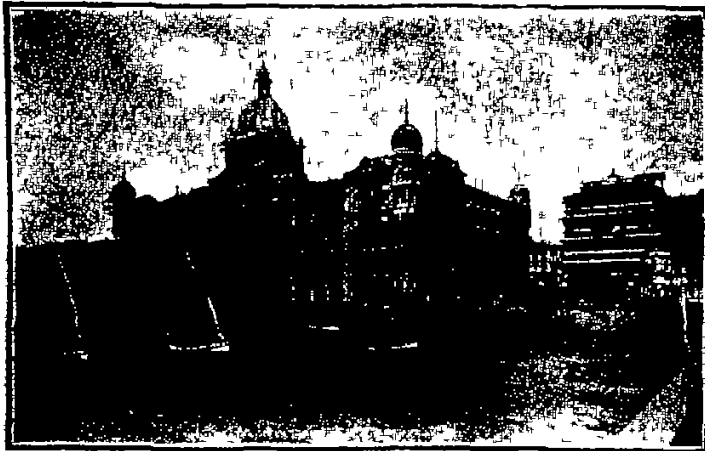
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